THE ESSENCE OF SECONDARY AGRICULTURE TEACHERS' EXPERIENCES WITH TEACHER COLLABORATION

By

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To my parents, Jerry and Susie De Lay; my husband, Jason Eatmon; and Doodle. Also to three dedicated agricultural education professionals, my participants.

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LIST OF TERMS AND ABBREVIATIONS

Agricultural Education	A program offered through the nation's public schools at the middle and high school levels, comprised of three key components: classroom and laboratory instruction, FFA, and SAE. Agricultural education prepares students for careers and continuing education in "global agriculture, food, fiber and natural resources systems" (National FFA Organization, n.d.c).
CDE	A Career Development Event is a competitive activity designed to test the knowledge and skills FFA members gain from classroom instruction and their SAEs, with the goal of preparing them to enter a career in agriculture (National FFA Organization, n.d.a).
CTE	Career and Technical Education provides students access to academic subject matter relevant to real world contexts and prepares students for a variety of careers (Association for Career and Technical Education, n.d.).
Distinguished Teacher Phase	Teacher in the fifth phase of the Life Cycle of the Career Teacher model (Steffy, Wolfe, Pasche, & Enz, 2000). "The distinguished phase is reserved for teachers truly gifted in their field. They exceed current expectations for what teachers are expected to know and do. These teachers are the 'pied pipers' of the profession. Distinguished teachers impact education-related decisions at city, state, and national levels" (Steffy & Wolfe, 2001, p. 17). For the purpose of this study, teachers in this category were identified as such by the members of the expert panel.
Espoused platform	A statement of a teacher's beliefs and goals for teaching and learning within the teacher's particular academic situation (Nolan and Hoover, 2005).
Expert Teacher Phase	Teacher in the fourth phase of the Life Cycle of the Career Teacher model (Steffy, Wolfe, Pasche, & Enz, 2000). "Even if they do not formally seek it, these teachers meet the expectations required for national certification. The goal of the Life Cycle of the Career Teacher model is to assure that all teachers develop their skills to operate at this expert level" (Steffy & Wolfe, 2001, p. 17). For the purpose of this study, teachers in this category were identified as such by the members of the expert panel.

FAAE	Florida Association for Agricultural Education is the professional association for teachers of agriculture in the state of Florida.
FFA	A youth leadership organization integral to the public school agricultural education program with the mission of preparing students for premiere leadership, personal growth and career success (National FFA Organization, n.d.c).
Interactive talk	A process where teachers work collaboratively to construct meaning through conversation (Carroll, 2005).
Lesson study	A professional development tool where teachers collaborate with other teachers to write a lesson, present it, provide feedback, revise the lesson and then reteach it (Puchner & Taylor, 2006).
Phenomenology	A qualitative research method used to describe "the meaning of the lived experiences for several individuals about a concept or the phenomenon" (Creswell, 1998, p. 51).
SAE	Supervised Agricultural Experience is a hands-on opportunity for students to apply and develop the knowledge and skills gained from classroom instruction and FFA participation (National FFA Organization, n.d.b).
Spontaneous collaboration	An unplanned, unpredictable type of collaboration initiated by teachers with no formal mandate from a governing body or administration (Williams, Prestage, & Bedward, 2001).
Structural collaboration	A form of collaboration initiated by formal mandate from a governing body or administration (Williams et al., 2001).
Teacher collaboration	Teacher collaboration occurs when teachers "coordinate their activities to achieve common goals that, in time, guide future shared actions" and whose "shared history and culture eventually provide the stability and predictability that are crucial for meaningful collaborative work to occur" (Dooner, Mandzuk, & Clifton, 2008, p. 565).
Teacher study group	A form of teacher collaboration providing opportunities for teachers to learn through inquiry and critical analysis (Carroll, 2005).

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This qualitative study examines experienced secondary agriculture teachers' perceptions of teacher collaboration. Nine interviews were conducted with three experienced secondary agriculture teachers, using phenomenological research methods. The participants included two males and one female with an average of 15 years teaching experience. Two questions guided this study: (a) how do experienced secondary agriculture teachers perceive teacher collaboration and (b) how do experienced secondary agriculture teachers experience teacher collaboration?

Findings suggest teachers had positive feelings regarding teacher collaboration. Participants felt their experiences working with other teachers were a source of professional revitalization and fulfillment. Greater career satisfaction was an important byproduct of their interaction. The teachers contended agriculture teachers' responsibilities are unique to those expected of other teachers, making the career rather isolating. They also mentioned experienced agriculture teachers fail to do an adequate job of extending support to new professionals. They suggested teacher collaboration may be effective in addressing the challenges of teacher career dissatisfaction and lead to greater teacher retention.

CHAPTER 1
INTRODUCTION

Background

According to Joerger and Bremer (2001), a teacher's experience follows reading achievement as a major contributor to student academic success. The National Commission on Teaching and America's Future (1996) has said highly qualified teachers are the most important piece of a child's education. Despite the critical association between the role of teacher experience and the student's level of achievement, each year nearly one third of the nation's teachers vacate their posts (Kersaint, Lewis, Potter, & Meisels, 2007; Smith & Ingersoll, 2004) with about half leaving before the close of their sixth year (Joerger & Boettcher, 2000). Retirement is inevitable but the constant turnover is leaving the nation's classrooms in an experienced teacher deficit (Liu & Ramsey, in press; Stansbury & Zimmerman, 2000) and student achievement is inevitably compromised (Joftus & Maddox-Dolan, 2003; National Commission on Teaching & America's Future, 1996).

Agricultural education is also wrestling with its own problems as a result of the teacher shortage trend. Kantrovich (2007) projected a 38 percent deficit of qualified agriculture teachers nationwide for the fall 2007 semester, a phenomenon which is not new. In fact, this concern has been expressed in the profession's supply and demand reports spanning over 40 years (Roberts & Dyer, 2004). Agricultural education mirrors national Career and Technical Education (CTE) statistics as it is also estimated CTE loses about half of its new professionals within their first six years of employment (Heath-Camp & Camp, 1990). The variability of the agriculture teacher career description (Greiman, Walker, & Birkenholz, 2005; Mundt & Connors, 1999; Walker, Garton, & Kitchell, 2004), is believed to place additional pressure on new teachers. Researchers found the less attention paid to beginning teachers early in their careers the less likely they were

to return for another year (Greiman et al., 2005). With a high rate of teacher turnover and a number of retirements looming in the immediate future, the profession cannot afford to lose teachers in these early stages (Boone & Boone, 2007; Smith & Ingersoll, 2004).

A considerable base of literature exists on the topic of teacher attrition. The factors contributing to teacher loss include the increased level of challenge associated with the role of a teacher (Mundt & Connors, 1999; National Commission on Teaching and America's Future, 1996) and the shock new teachers experience transitioning from student teaching into their first teaching positions (Gehrke & McCoy, 2007b; Joerger & Bremer, 2001; Walker et al., 2004). Career dissatisfaction is another important consideration driving teachers away and is based on a variety of underlying factors (Alliance for Excellent Education, 2005; Ingersoll, 2001a; Johnson & Birkeland, 2003). Wilhelm, Dewhurst-Savellis, & Parker (2000) narrowed the list to the behavior exhibited by students, challenging relationships with others working at the school, a lack of student feedback, and salary as contributing to a teacher's decision to leave (p. 292). Munthe (2003) added the elements of role ambiguity and work mandated by the school, to the list. Although efforts have been made nationally to improve teachers' salaries, and research has been conducted on the issues of dissatisfaction, attrition persists (Stewart, Moore, & Flowers, 2004).

Teachers' feelings of isolation have been identified as contributing to career dissatisfaction (Greiman et al., 2005; Liu & Ramsey, in press). While some isolation is prized by teachers as a buffer from outside interference, other forms of isolation depict teachers who are closed off behind their classroom doors due to barriers and constraints (Cochran-Smith & Lytle, 1996; Hargreaves, 1994; Smith & Ingersoll, 2004). Teacher isolation has been described as a learned behavior. "Because they face constant threats to control, dignity, and job security, teachers must

also learn to maintain a lonely distance from students, colleagues, administrators, and community" (Richardson & Placier, 2001, p. 923). Furthermore, a teacher's daily work routine generally contains little time for them to meet and engage in professional discussion (Cochran-Smith & Lytle, 1996). This leaves teachers struggling alone, masking the reality of their experiences from their counterparts on the outside. They grapple independently with issues such as planning, program management and student behavior (Cochran-Smith & Lytle, 1996; Greiman et al., 2005; Hargreaves, 1994; Kardos & Johnson, 2007). Should time for work with their peers become available, the teacher finds it is neither viewed nor valued as related to their professional work (Cochran-Smith & Lytle, 1996). The sheer pressure of the situation has been known to become so overwhelming the teacher feels no other choice but to abandon his or her post and seek employment elsewhere (Joerger & Bremer, 2001).

Regarding why teachers remain in the profession, researchers have identified the social aspects of the career to be a great contributor (Boone & Boone, 2007; Hargreaves, 2001; Johnson & Birkeland, 2003; Thobega & Miller, 2003). Networks, teams, groups, mentoring relationships, and other teacher socialization structures encourage individual teachers to forge relationships with those in the collective whole (McLaughlin & Oberman, 1996). Hargreaves (1994) suggested collaboration and collegiality have the power to help teachers develop throughout their careers. Collaboration and collegiality are also credited with motivating teachers to return each year (Boone & Boone, 2007) and have been recommended as ways to combat the feeling of isolation (Greiman et al., 2005; Williams, Prestage, & Bedward, 2001). Connectivity pulls teachers from their classroom islands and places them in the school interface, having them support one another through the actions of sharing and problem solving. When the interaction is based on the needs

of teachers' work it is considered important and useful (Feiman-Nemser, 2001), renewing their "sense of purpose and efficacy" (Lieberman & McLaughlin, 1996, p. 63).

Tools which foster professional learning have the capacity to reduce teacher isolation and can even validate the concept of "collective learning" in the school context (Lieberman, 1996, p. 200). Teacher collaboration is one such tool involving the coordinated work of individuals toward a common goal, often based on a common "history and culture" (Dooner, Mandzuk, & Clifton, 2008., p. 2). Hargreaves (1994) described the culture of teacher collaboration as "spontaneous, voluntary, development-oriented, pervasive across time and space, and unpredictable" (p. 192-193). Touted as the cure-all for teacher isolation, student performance, and professional development (Brownell, Yeager, Rennells, & Riley, 1997; Erb, 1995; Goddard, Goddard, & Tschannen-Moran, 2007; Goddard, Hoy, & Woolfolk Hoy, 2000; Pounder, 1998; Shachar & Shmuelevitz, 1997); teacher collaboration has the potential to increase professional commitment among teachers and positively impact their career satisfaction (Johnson & Birkeland, 2003; Weiss, 1999; Woods & Weasmer, 2004). Despite these benefits, teacher collaboration is not common practice in many schools (Burbank & Kauchak, 2003; Inger, 1993; Rhodes & Beneicke, 2002).

Many prototypes exist for the implementation of teacher collaboration. Structural collaboration involves school-mandated collaboration among teachers (Williams et al., 2001). These arrangements often involve meetings and a group of teachers working on a school-level issue. Structural collaboration differs from "contrived collegiality" (Hargreaves, 1994) because the concept seeks to eliminate teacher isolation and foster the development of teacher practice. Spontaneous collaboration is a more open term used to describe the unexpected opportunities which emerge for teachers to learn and work together (Williams et al., 2001).

In concert with research on how teachers learn, teacher collaboration affords professional educators the chance to work together in the co-construction of both product and knowledge (Butler, Novak Lauscher, Jarvis-Selinger, & Beckingham, 2004). The strength of this professional development tool rests on the fact teacher collaboration has the capacity to help teachers concentrate their collective efforts on a professional problem they face (Penuel, Fishman, Yamaguchi, & Gallagher, 2007). It also has the power to lessen the devastating effects of teacher isolation (Burbank & Kauchak, 2003). While concerns about career dissatisfaction and teacher attrition remain at the forefront of the teaching profession's challenges, teacher collaboration may provide some hope with helping teachers stay the course and maintain their career commitment.

Statement of the Problem

According to the national supply and demand report (Kantrovich, 2007), the agricultural education profession finds itself in the midst of a shortage of agriculture teachers. In search of a way to alleviate the problem, the National Research Agenda: Agricultural Education and Communication 2007-2010 (Osborne, n.d.) has named the need for an abundant agriculture teacher supply among its research priority areas. The National Council for Agricultural Education (2004) has set a strategic goal of increasing the number of agricultural education programs from 7,242 (National FFA Organization, 2007) to 10,000 by the year 2015. This "10 by 15" initiative has placed a burden on teacher education and secondary education to not only prepare and hire a great many more qualified teachers but also to provide support to retain those already employed (Kantrovich, 2007). Feelings of isolation, low-self efficacy, a lack of knowledge, the inability to deal with work related stress, and other factors related to career dissatisfaction are professional challenges with which many teachers struggle and researchers

cannot afford to disregard. Teacher collaboration holds promise as a form of assistance for helping teachers cope with the reasons for high teacher turnover.

Previous research in the agricultural education literature has reported teachers benefit from interaction with other educational professionals (Balschweid, Thompson, & Cole, 2000; Boone & Boone, 2007; Greiman et al., 2005; Joerger & Boettcher, 2000; Park, Moore, & Rivera, 2007; Roberts & Dyer, 2004; Warnick, Thompson, & Gummer, 2004). However, there is little research providing a thorough examination of teacher collaboration as a method of educational interaction. It is not yet known what teacher collaboration looks like in agricultural education. It is not yet known what the phenomenon of teacher collaboration can do for teacher knowledge. It is not yet known how teacher collaboration can be increased. It is not yet known who is, or are, in the best position(s) to perpetuate teacher collaboration within agricultural education. Consequently, little has been mentioned about the use of teacher collaboration as a tool for contributing to teacher career satisfaction and for lessening the trend of high teacher attrition rates. The profession must gain a more complete understanding of teachers' perceptions and experiences with teacher collaboration if it is to exhaust every possibility in the quest for addressing the need for retaining quality teachers (Osborne, n.d.).

Statement of the Purpose and Exploratory Questions Guiding Study

The purpose of this study was to describe the phenomenon of teacher collaboration from the perspective of the three secondary agriculture teacher participants. In-depth interviews using the Seidman (2006) technique were used to explore participants' personal experiences and form a more complete picture of teacher collaboration. The following questions guided the research:

- How do experienced secondary agriculture teachers perceive teacher collaboration?
- How do experienced secondary agriculture teachers experience teacher collaboration?

Limitations and Assumptions of the Study

The limitations regarding this study have the potential to impact the degree to which the findings may be validated. This section addresses the limitations of the study related to the methods and to the participants.

Methods

Phenomenological research "calls into question what is taken for granted" (Crotty, 2003, p.82) by describing the meaning several individuals have formed through their experiences with a particular phenomenon of interest (Crotty, 2003; Moustakas, 1994). Phenomenology is supported by the assumption that the essence of a phenomenon is similar among the participants involved in the study. Adherence to the phenomenological design requires the researcher to lay aside all common and first-hand understandings of a phenomenon, in search of how the phenomenon has been experienced by others (Hatch, 2002). The goal is to be able to discover new meanings and perhaps even substantiate those already in existence (Crotty, 2003). These new understandings spring forth from the experiences and meanings shared among the participants through data analysis. As a result, the essence of teacher collaboration is presented as understandings formed through the perspectives of three experienced secondary agriculture teachers, rather than through the perspectives of them all. Despite this limitation, it is important to note the diversity of experiences contributed by the participant group. These variations of perspective contributed a range of elements related to the essence of the phenomenon and increase its universality (Moustakas, 1994).

Epoche is a reflective process in which the researcher engages throughout a study. This process involves reflecting on personal assumptions about the phenomenon of interest, writing them in a researcher subjectivity statement, and then continually referring to them throughout the research. Making personal experiences and beliefs explicit helps a researcher become open to the

new ways of seeing. This practice lies at the core of phenomenology. Failure to bracket one's personal biases or failing to engage in Epoche throughout data collection and analysis can present a limitation as the researcher runs the risk of contaminating the purity of the work. In the present study, the researcher was careful to adhere to this important step to phenomenological methodology.

Participants

The development of the composite descriptions and textural/structural statement were evolved from the experiences shared by the small, homogeneous participant group. This qualitative study chose to focus on secondary agriculture teachers from Florida in the mid-point of their careers, at the "expert" and "distinguished" phases of the Steffy, Wolfe, Pasch, and Enz (2000) Life Cycle of a Career Teacher model. Additionally, the agriculture teaching population in Florida consists of secondary teachers at both the high school and middle school levels. This study featured participants currently serving as teachers at the high school level, although one had spent five years teaching at the middle school level early in her career. Inclusion of more participants, and/or participants from a different phase of their careers would have contributed to the study's breadth.

The highly individualized nature of the data is not intended to be generalized to a larger population as the three teachers from the study may not be accurate representations of the "typical" agriculture teacher. The researcher made the assumption that the perspectives of these teachers' experiences with the phenomenon of interest were meaningful (Patton, 2002). It was further assumed the participants selected were open and provided honest responses to the questions asked of them which accurately reflected their perceptions about, and experiences with, teacher collaboration.

CHAPTER 2
REVIEW OF THE LITERATURE

Introduction

The culture of isolation within the teaching profession provides both advantages and drawbacks related to teachers' work experience (Hargreaves, 1994; 2001). While some teachers appreciate the autonomy gained through isolation (Achinstein, 2002; Bogler, 2002; Guarino, Santibanez, & Daley, 2006; Hargreaves, 1994; Johnson, 2003), isolation has been identified as a factor contributing to career dissatisfaction (Burbank & Kauchak, 2003; Greiman et al., 2005; Hanson & Moir, 2008; Hargreaves, 1994; Johnson, 2003) and career dissatisfaction often leads to teacher turnover (Alliance for Excellent Education, 2005; Wilhelm et al., 2000). However, as stated in Chapter 1, a gap exists in the agricultural education literature base regarding teacher collaboration as a method for improving a teacher's level of satisfaction with his or her career.

The purpose of this study was to draw the voices of agriculture teachers into the literature by examining experienced secondary agriculture teachers' perceptions of teacher collaboration. The study also aimed to uncover the participants' experiences with teacher collaboration. This chapter lays the conceptual framework for the study and provides a review of the pertinent literature related to teacher collaboration.

Conceptual Framework

The conceptual framework for this study involves the relationships teacher collaboration shares with three areas which ultimately lead to teacher retention: teacher knowledge, teacher professional development, and teacher career satisfaction. The researcher conceptualized these relationships relevant to the study by arranging the five components in a conceptual model (Figure 2-1). The literature review to follow supports the relationships each of the elements shares with teacher collaboration and serves as the theoretical foundation of the study.

Teacher Learning

In order for the measures of accountability to achieve the success policymakers expect, students must be taught by teachers who have access to "more powerful learning opportunities" (Feiman-Nemser, 2001, p. 1014). These opportunities for teacher learning must challenge and support teacher growth in a way which considers "teacher background, experience, knowledge, beliefs, and needs" (Chval, Abell, Pareja, Musikul, & Ritzka, 2008, p. 32). Collaboration with other teachers is one way to address the aforementioned considerations (Chval et al., 2008; Hargreaves, 2001). Termed the "Age of the Collegial Professional" (Hargreaves, 2000, p. 162), teachers have been turning inward to learn from and with their peers about how to deal with the dynamics of the current educational environment. Many demands are placed on teachers, each requiring immense effort and greater time commitments. Teachers have also grown skeptical of the capacity for outside knowledge organizations to provide learning opportunities to help them meet these challenges. Instead they have looked more intently at the pool of knowledge residing among themselves and their colleagues for access to professional development commensurate with their particular needs (Goddard et al., 2007; Shulman, 1986).

Many different theories exist describing how teachers learn. As a result, the parties responsible for providing teacher learning opportunities find it difficult to offer experiences and content most appropriate for an individual teacher's needs. The broad learning contexts of teacher education programs, ongoing professional development, the evolution of professional culture, and teacher assessment methods related to school reform all require support providers have a thorough understanding of teacher learning theory (Cochran-Smith & Lytle, 1999). Before any change may be enacted to the teaching experience, support providers must understand the basic assumptions of how teachers learn. Cochran-Smith and Lytle (1999) sought to lend clarity to the issue of teacher learning by deconstructing each of its three pervasive

conceptions including: knowledge for practice, knowledge in practice, and knowledge of practice.

Knowledge for practice refers to the formal knowledge base in teaching. Derived from experts usually at the university, this type of knowledge is weighted by a theoretical foundation and marketed for consumption by teachers. The conception is founded on the premise the more one knows, the more effective they will be. Learning information from a variety of educational domains (ie. content, student development, assessment, teaching methods, etc…), and from a variety of external sources (ie. professional development workshops, continuing education, expert speakers, etc…), teachers are considered to be "knowledge users, not generators" (Cochran-Smith & Lytle, 1999, p. 257). Knowledge is transmitted to teachers through formal training, for the purpose of implementing best practices and enacting widespread professional change. Standardized methods are used to assess *knowledge for practice*, since the format focuses on content limited to basic educational literacy. Exams administered to teachers seeking certification are based on this assessment format.

Teachers acquire *knowledge in practice* directly from the act of teaching. Experience then is credited as the ultimate factor in developing one's effectiveness as a teacher. To generate knowledge, the teacher engages in continuous inquiry and reflection on practice. This separates *knowledge in practice* from the more formal research literature base. The learning occurring in this conception does not take place in isolation, since the teacher interacts with other teachers to become more effective in his or her practice. Situations encouraging interaction among teachers, like teacher collaboration, serve as opportunities for teachers to examine and expand their knowledge together. Collectively, they espouse their beliefs and learn new ways to align their actions with those beliefs. The accumulation of a variety of data such as videos and evidence

files, provide the content for assessing this conception of teacher learning (Cochran-Smith & Lytle, 1999).

Knowledge of practice stands in strict opposition to the characteristics of the other two conceptions of teacher learning and reveals knowledge as connected to both theory and practice. This blended view embodies what Munby, Russell, and Martin (2001) called a "fusion of experience and theory" (p. 887) and tends to garner wider acceptance from teachers because of its local generation and proven utility and applicability (Cochran-Smith & Lytle, 1999; Shulman, 1986). *Knowledge of practice* is not a marriage of *knowledge for practice* and *knowledge in practice*. The conception addresses the creation of knowledge for use beyond immediate needs to shape teacher perceptions, judgments, decisions, and theory development, relating it to the broader context of professional transformation. This progressive spin on the educational environment requires teachers to cast a critical eye on what they know and believe, and on the current systems of operation.

Teachers engaging in *knowledge of practice* problematize their teaching within a collaborative context with other teachers (Cochran-Smith & Lytle, 1999). They expand their teacher identities by incorporating new professional roles. Acting as researchers, leaders, developers, and agents of change these teachers question their experiences and make sense of their work from a position of social responsibility. Talk is important to this conception since teachers serve as both learners and contributors engaged in professional dialogue (Cochran-Smith & Lytle, 1999; Williams et al., 2001). The convergence of many points of view in one space moves teacher learning beyond what can be gained from the traditional expert-novice arrangement featured in much of professional development. They also expose their learning to further critique through conference paper presentations and submissions to peer journals.

Subjecting their knowledge to assessment by the broader professional audience initiates still further learning (Cochran-Smith & Lytle, 1999).

Each of the three conceptions of learning are active in education. Because change is inevitable, it is impossible for teacher education programs to prepare preservice teachers for everything they will encounter during their careers (Hammerness, Darling-Hammond, Bransford, Berliner, Cochran-Smith, McDonald, & Zeichner, 2005; Hargreaves, 2000; Johnson, 2003). Instead, programs must consider what learning is essential. Chief among knowledge deemed key to new professionals is imparting those skills which equip them to be lifelong learners (Hammerness et al., 2005).

Lifelong learning can support the actions necessary to refining one's identity as a teacher (Hammerness et al., 2005). The actions associated with lifelong learning involve continually challenging one's beliefs and practice as new information is received, and learning how to launch shifts in beliefs and practice (Hatano & Oura, 2003). Such outcomes do not happen by chance, requiring a teacher who is willing to take risks. Labeled "adaptive expert," the teacher who is a lifelong learner seeks a balance between the concepts of "efficiency" and "innovation" related to enacting professional change toward expertise (Hammerness et al., 2005, p. 48-49). Teachers operating at this level have greater potential for creativity, flexibility, and transferring their learning to new contexts. The quest for feedback is foundational to the development of an adaptive expert and collaborative experiences provide the basis for teacher interaction and continued learning (Hammerness et al., 2005).

When considering the concepts of *knowledge of practice* (Cochran-Smith & Lytle, 1999) and *adaptive expertise* (Hammerness et al., 2005), teacher collaboration emerges as a common element for encouraging teacher learning. In the National Research Council's report on how

people learn, four perspectives were shared forming a framework by which the effectiveness of a learning environment could be considered. The four perspectives included: learner centered, knowledge centered, assessment centered, and community centered (Chval et al., 2008; Donovan, Bransford & Pellegrino, 1999; Hammerness et al., 2005). The *learner centered* component addresses the knowledge, skills and beliefs teachers carry with them to the educational setting. With the *knowledge centered* component, the focus is on the content necessary for teachers to make sense of the educational setting. The *assessment centered* component utilizes performance and learner feedback to help teachers monitor their thinking and plan for areas of personal and professional development in an educational setting. (Cochran-Smith & Lytle, 1999; Hammerness et al., 2005). Each of the aforementioned components fall within the *community centered* component. This piece looks at teacher learning as a teacher engages in educational research and seeks meaning through collaborative relationships. The power of this framework occurs as teachers learn about teaching together with others, often observing one another's performances and engaging in deep, professional conversations. Simply put, "teachers normally learn better together than they do alone" (Hargreaves, 2000, p. 165)

Steffy, Wolfe, Pasch, and Enz (2000) provide a six phase model of a teacher's career development. The phases include (1) novice – teachers at the preservice level, (2) apprentice – induction teachers in the early stages of the career, (3) professional – inducted teachers with a student-centered focus, (4) expert – teacher leaders with commitment to student growth, reflection, and professional development, (5) distinguished – gifted teachers who maintain the respect of the profession and have made an impact on it at various levels, and (6) emeritus – teachers who have retired from a lifetime in the career. As there is no timetable marking advancement; a teacher achieves movement through the phases by implementing actions related

to reflection, renewal and growth (Steffy & Wolfe, 2001). Teacher collaboration falls within these elements of development.

Teacher Collaboration

Novice Phase

"It has been established that teacher collaboration is necessary for professional learning to occur" (Rhodes & Beneicke, 2002). This point is transferred to preservice teachers in the work by Sumsion and Patterson (2004). The researchers examined the concept of community with 145 preservice teachers enrolled in an 11 week unit during the final year of a teacher education program. The expectation of collaboration through online communication and a major group assignment provided a context for identifying the existence of community within the group. Respondents offered several key themes describing the characteristics which contributed to the sense of community they felt in the program, including: "voicing anxieties and concerns, making connections with others, participating in a shared endeavor, supporting each other, developing new skills/ knowledge/ insights/ attitudes/ identities through participation in the shared endeavor" (p. 625). The spirit of community provided a forum where participants were involved together in challenging their long held beliefs about teaching and learning. They also co-constructed new knowledge and abilities providing them with greater awareness of the possible directions they could take those initial pedagogical beliefs. By understanding these key contributors to community, researchers can enact strategies to minimize the occurrence of actions which may degrade this feeling within future cohort groups.

In a study using peer interaction, Manouchehri (2002) shared a case study of the collaboration which transpired between two preservice mathematics teachers engaged in an 11-week practicum. The participant pair spent four hours, two days each week, at their assigned school site and in their respective classrooms. During the first three weeks, each participant

observed her cooperating teacher while maintaining a personal reflective journal to establish a style baseline. The next four weeks involved the participants observing each cooperating teacher as a team, using collaborative reflection to later discuss what they witnessed. During the final four weeks, each participant took a turn observing the teaching practice of the other. Following the lesson, they met to again reflect collaboratively. Although the preservice teachers in the study exhibited insecurities related to their content area knowledge, the structure of the collaboration demonstrated preservice teachers' potential for growth. The researcher found through peer interaction, participants grew considerably in their professional knowledge and capacity for reflective inquiry.

Teacher collaboration has also been found to help preservice teachers develop as reflective practioners (Sim, 2006). The researcher used a structured form of teacher collaboration called a community of practice, organizing preservice teachers into tutorial groups with a tutor to support the participants' work in the program practicum. After nine years of using the structured preservice teacher collaboration model, a survey evaluation (n=151) of the tutorials found the program's strengths involved devoting time and guidance to collaborative teacher reflection. Sim's (2006) study demonstrated the possibility for teacher education to use a community of practice structure in its programs and help preservice teachers master skills associated with becoming life-long learners.

Sutherland, Scanlon, and Sperring (2005) outlined three teacher education programs utilizing communities of practice as a form of teacher collaboration and a way to prepare preservice teachers for the profession. Through a series of events such as shadowing in-service teachers, engaging young people in a content-rich science activity, and planning lessons appropriate for the needs of the in-service teachers with whom they were working; preservice

teachers were able to develop *knowledge of practice* (Cochran-Smith & Lytle, 1999) from their participation in authentic experiences. The *knowledge of practice* was a result of their application of blending theory and practice. The overarching themes generated from the interview data suggest the incorporation of structured teacher collaboration led to the active engagement of in-service teachers, in the teacher education program experiences of the preservice teacher participants. Additionally, preservice teachers had an opportunity to develop the depth of their professional knowledge and gained greater confidence in their decisions to become teachers.

The challenge facing teacher collaboration in fostering the integration of science and agriculture surfaced in a mixed-methods study by Balschweid, Thompson, and Cole (2000). The research team sought to determine if delivering an integrated agriculture and science curriculum would improve preservice teachers' attitudes toward collaborating with science teachers. Participants mentioned several factors impacting their willingness to collaborate with science teachers. First, they needed to find some common ground between the science teacher's personality and their own. They also needed to overcome barriers such as a lack of time to work together, poor historic department reputations, and competition for students and resources. By introducing the topic of collaboration during the preservice program, most preservice teachers indicated they would be more likely to attend future workshops addressing the topic as part of their professional development.

A study by Seifert and Mandzuk (2006) examined the potential of preservice cohort groups for encouraging peer collaboration. Based on findings from in-depth interview data, researchers described the personal experiences of participant interactions with cohort peers. Although cohorts were established to foster professional discussion and development, results demonstrated the structure did little to contribute to that mission. Instead, participants believed the cohort

provided the social and emotional support they needed to persist in the program. The collaborations consisted primarily of clarifying program logistics and procedures, and establishing a cordial group culture. While participant age and maturity impacted the significance these collaborative efforts had on their learning and development, most participants appreciated the structure crediting it with helping them connect to, and cooperate with, their peers.

Apprentice Career Phase

"New teachers have two jobs – they have to teach and they have to learn to teach" (Feiman-Nemser, 2001). Quality induction programs, according to Moir and Gless (2001), should have the vision of developing teacher leaders rather than teacher survivors. This perception helps district administration and other educational organizations who allocate the necessary time and resources for these programs develop the necessary commitment and support for new teacher learning.

Quality mentoring is also a requirement of high quality new teacher induction. Moir and Gless (2001) called it the most critical component of new teacher support and, along with Feiman-Nemser (2001), added any mentor of new teachers should be well educated in the "pedagogy of mentoring" (p. 112). Furthermore, induction programs should extend beyond one year (Feiman-Nemser, 2001; Joerger & Bremer, 2001; Marshak & Klotz, 2002; Moir & Gless, 2001), be based on professional standards (Moir & Gless, 2001), and incorporate collaboration with other teachers (Feiman-Nemser, 2001; Moir & Gless, 2001). Induction programs which feature a mentoring component often have a positive impact on the rate of teacher attrition (Norman & Feiman-Nemser, 2005; Wang & Odell, 2002).

Smith and Ingersoll (2004) quantitatively examined the impact of teacher induction on new teacher retention. This specific study objective utilized a national sample of 3,235 beginning

teachers in the 1999–2000 school year. Comparing current data to that acquired beginning in the 1990–1991 school year, teacher participation in induction programs had risen. The early career teachers who participated in such programs were more likely to remain in their positions rather than change schools or exit the profession. When paired with mentors within their own fields, there was a 30% reduction in teacher loss. Other mechanisms of support, such as collaborating with teachers other than their mentors and regular communication with administration, were found to significantly reduce the risk of leaving.

Greiman, Walker, and Birkenholz (2005) conducted a mixed-methods study to investigate the induction environment of 31 first-year agriculture teachers in Missouri. It was determined most new teachers had access to some type of induction program with 93% being appointed a formal mentor from their school, most of whom taught in another content area. This group of beginning teachers was not ready for the isolation they felt upon entering the classroom. They greatly valued the collaboration generated by their mentoring relationships, as the interactions addressed many of their concerns. However, about half of the population stated they failed to receive the help they needed with 81% of their program management responsibilities. This gap indicated while beginning agriculture teachers received assistance with issues common to all teachers, they were less likely to receive support specific to their content area specialization and any roles unique to their positions as agriculture teachers. These findings underscore the importance of having the opportunity to collaborate with those in the same content area.

Professional, Expert, and Distinguished Career Phases

Hargreaves (1994), and Richardson and Placier (2001), found collaboration and collegiality take teacher learning from an individual experience to a collective one. Feiman-Nemser (2001) stated the isolation teachers experience is not conducive to growth, yet through interaction with other teachers, they find a wealth of support and knowledge. Burbank &

Kauchak (2003) found collaboration led to a change in both practice and beliefs related to the roles of research and practice. The problematizing, sharing, and cohesion of a collaborative professional environment can contribute much to the end results of teacher job satisfaction and retention (Grayson & Alvarez, in press; Macdonald, 1999).

Shachar and Shmuelevitz (1997) assessed the effects of an inservice program on the learning and attitudes of teacher participants. Findings of their research revealed teachers engaging in more collaboration with other teachers reported a higher degree of efficacy related to their professional responsibilities, regardless of their years of teaching. These teachers felt strong support for their learning and growth. They also felt more qualified and successful at encouraging cooperation among their students because of their own positive experiences. These findings imply teacher collaboration supports the development of teacher efficacy and teacher job satisfaction.

Related to the development of experienced teachers serving as mentors to early career teachers, Carroll (2005) shared how the teacher study groups were a viable option for teacher learning. In the study, five elementary school teachers met regularly to engage in professional dialogue about their experiences mentoring new teachers. The discussion was described as "interactive talk," with teachers working together to examine information and construct meaning related to their mentor roles. The depth of this type of discussion, combined with the relationship of the group, resulted in greater professional learning as each participant recognized the value of knowledge created through collective inquiry. The notion of teacher study groups as modes of inquiry-oriented learning was reported to be a powerful way to help mentors grow together and better understand the role in which they had been chosen to serve.

The burgeoning world of online exchange has opened new possibilities for teacher collaboration to achieve greater flexibility for teacher learning and socialization. Selwyn (2000) reported on his two-year study of teachers' use of online discussion groups. Used primarily for information exchange and professional support, these communities of collaboration provided their teachers freedom from the constraints of time and place on teacher growth. Regardless of the positives, adoption and use occurred by chance, relegating this new venue as a supplemental feature of preexisting face-to-face communities rather than a distinct alternative.

Hartnell-Young (2006) provided evidence similar to that revealed by Selwyn (2000). This study of 32 teachers and principals from twelve schools found engagement among teachers improved practice, using the tools of direct conversation and online discussion. Such activities took place as teachers fulfilled their roles of designing the learning environment, managing people and resources, and mediating learning. With time named as the most critical resource related to the improvement of practice, opportunities for collaboration and reflection were carved into the school day for many schools. The teachers located on a site with dedicated collaboration time were only able to take advantage of face-to-face opportunities for working with the other teachers on their site. The online discussion boards, however; were open to and available to all teachers in the project, making them a popular domain for planning and problem solving. Teachers encouraging one another in new methods, creating learning goals on the individual and social levels, and creating theories from their practice provided further evidence of their focus on improving their practice.

Teacher collaboration is often addressed as a method to seek school improvement and, while an important task given the current political climate, little research exists relating teacher collaboration to student achievement (Goddard et al., 2007). Goddard et al. (2007) conducted a

study of 47 elementary schools in the Midwest to find if there is an association between "teacher collaboration for school improvement and student achievement" (p. 879). A total of 452 teacher participants completed a survey addressing their collaboration with other teachers and student test score data for 2,536 fourth graders was gathered from the school office. Researchers noted a significant and positive relationship between teacher collaboration and student achievement. Schools with higher levels of collaboration claimed higher levels of student achievement. Goddard et al. (2007) believed the powerful principles for teaching and learning foundational to teacher collaboration better prepared teachers for improvement.

According to Achinstein's (2002) study of teacher communities at two schools, teacher collaboration has the potential to spur teacher conflict. The process of reaching consensus common to collaborative efforts opened a space for teachers to cast a critical eye on existing beliefs, practices, and structures, but each school community handled the issue of conflict differently. The learning potential in teacher collaboration is dependent on how a community chooses to address issues of conflict. To better understand the details of this dilemma, Achinstein (2002, p. 441) identified a set of four processes of conflict. Each process lies on a continuum including: (a) *conflict stances* ranging from *avoidant* to *embracing*, (b) *border politics* from *unified* and *exclusive* to *diverse* and *inclusive*, (c) *ideology* from *mainstream* and *congruent* to *critical* and *counter*, and finally (d) o*rganizational change and learning* ranging from *stability* and *static* to *change* and *learning*. The two communities within the study provided a picture of schools typifying each end of the spectrum for the four processes. Each school experienced benefits in the areas of faculty development and student success as a result of teacher collaboration. However, teacher collaboration with appreciation for critical inquiry is necessary

for growth and reform. The researcher mentioned real change comes from challenging the status quo and is a necessary action to meet the current expectations policymakers have for teachers.

Teacher Professional Development

Quality professional development must be based on the understandings of how teachers learn (Lieberman, 1996). “Professional development must consider teachers as learners and build on participants’ knowledge, skills, and beliefs; focus on knowledge and practice; provide opportunities for feedback, revision, and success; and require interactions with others” (Chval et al., 2008, p. 32). In these opportunities, teachers not only learn about the pedagogical side of teaching (Little, 2002), they learn how to inform practice (Erickson, Brandes, Mitchell, & Mitchell; 2005). Each of these issues is key to a teacher’s *knowledge of practice* and *adaptive expertise* (Cochran-Smith & Lytle, 1999; Hammerness et al., 2005).

Professional development is a high quality experience when all educators contribute to its formation and continuance (Feiman-Nemser, 2001; Nolan & Hoover, 2005). This key component of high quality professional development surfaces the qualities of teacher leadership and responsibility. Nolan and Hoover (2005) stated, “All educators therefore have two roles to play. First, they are the primary movers in their own professional growth. Second, they help to foster the growth of other educators by participating in the processes” (p. 8). Lee and Smith (1996) view this as a bottom-up action, engaging those at all ranks of the school hierarchy to get involved. This includes administration, as they must also play a role (Richardson & Placier, 2001), offering support through encouragement and resource allocation (Feiman-Nemser, 2001). This helps to improve the nature of the culture surrounding professional development (Ackerman, Donaldson, & Van Der Bogert, 1996).

Park, Moore, and Rivera (2007), conducted four focus groups of a total of 26 high school agriculture teachers in New York to identify their perceptions of professional development.

Participants felt informal interaction and networking with other teachers was not only professional development but they considered it to be far more meaningful than other mandated programs with which they had experience. They also believed interacting with other agriculture teachers was considerably less intimidating than interacting with teachers from another content area. However, early career teachers felt comfortable working with teachers outside of agriculture more often than those in later stages. Researchers also found the participants valued their interactions, perceiving them to be professionally enlightening and revitalizing, cause for professional reflection, and a way to create a professional brotherhood.

Collaboration often involves colleagues working together for a common purpose (Dooner et al., 2008). Erickson et al. (2005) examined two professional development projects with teacher collaboration as their goal. Through collaboration, teachers generated both practical and formal knowledge. These products helped the teachers further professionalize their practice and aided them in enlightening the larger educational community when sharing the information beyond the local group. The collaborative culture generated in these environments showcased the high level of commitment each teacher extended to working with their peers. The collaborative relationships formed contributed to teachers' overall career satisfaction. Although the collective interest was well served, the evidence showed the needs of individuals were met in many ways such as by the development of a more fulfilling work life (Louis, Marks, & Kruse, 1996; Wenger, 1998).

School reform is a popular occurrence in light of the current climate of educational accountability (Achinstein, 2002; Schnellert, Butler, Higginson, 2008). The No Child Left Behind Act of 2001 reported the federal government's strictest guidelines for improving elementary and secondary education in the United States (Joftus & Maddox-Dolan, 2003). To

help achieve the goals related to widespread student academic success, specific criteria were named to ensure every classroom would be facilitated by a “highly qualified” teacher (Joftus & Maddox-Dolan, 2003, p. 6). Demonstrating themselves to be proactive in their compliance with policymakers’ expectations, many schools looked to teacher collaboration to help their teachers develop themselves and their practice accordingly.

Teachers and others with a direct impact on the lives of students have been asked to accept some of the responsibility for student achievement (Schnellert, Butler, & Higginson, 2008). Schnellert et al. (2008) studied the dynamics of this multidimensional approach to accountability by looking at the promise of teacher collaboration as a professional development tool. Data were collected as teachers engaged in inquiry-based, teacher-driven and directed communities. Teacher groups were charged with examining instructional cycles in an effort to integrate change. Teachers worked together to examine their capacity for improving student learning, using an iterative instructional cycle. The method relied on a variety of data to encourage teacher collaboration. Researchers found teachers looking at their practice from this unique perspective had opportunities for inquiry and reflection, making it possible for them to assess their efforts in teaching for student learning and achievement.

Professional development should provide differentiated opportunities for growth (Nolan & Hoover, 2005). Just as a one-size-fits-all approach does not work for student learners (Tomlinson, 2001), it also fails to work for teacher learners. Because of each teacher’s unique knowledge, talents, and abilities, they do not all need the same type of professional development experiences, or at least not with the same degree of focus and intensity. Differentiation of professional development also means attention should be paid where each teacher falls within their career. The Life Cycle of a Career Teacher model (Steffy, Wolfe, Pasche, & Enz, 2000) can

help those who plan professional development by offering them a greater understanding of the factors which influence each stage of the teacher's career. The key is ensuring teachers get what they need, when they need it. Providing support for so many different needs at once can be a nearly impossible challenge. Teacher collaboration is a professional development tool that can empower teachers to shoulder some of the burden.

In a two-year study conducted by Butler, Novak Lauscher, Jarvis-Selinger, and Beckingham (2004), a collaborative model of professional development was implemented with the goal of surpassing the typical teacher learning outcomes of top-down professional development. Researchers claimed viewing teachers as professionals was a distinct perspective setting the collaborative model apart. Teachers engaged in a process of joint inquiry and taught the process to their students. This encouraged student use of inquiry to advance their learning. While researchers felt the collaborative aspect of the model was not necessary to teacher professional development, they did recognize the high level of work produced through the method. Practices and understandings were far richer than could have been generated working alone. The changes in teacher practice and understanding were also sustained far longer than researchers had initially expected.

Lastly, professional development should be sustained (Feiman-Nemser, 2001; & Richardson & Placier, 2001). So much of professional development is of a "quick-fix" variety, something to put on a check sheet (Nolan & Hoover, 2005). Feiman-Nemser (2001) called for an expansion of what professional development is and can be. Darling-Hammond and McLaughlin (1995) said it must not be a stand-alone requirement. Professional development must be integrated into all parts of a teacher's career. Cochran-Smith and Lytle (1999) suggested professional development offer opportunities for teachers to connect their prior knowledge with

their new learning (p. 258) to make the experience more powerful and lasting. The literature on teacher collaboration has mentioned spontaneous collaboration is a powerful mechanism for addressing professional development for the long run, since it is not bound by the parameters of a regimented program (Williams et al., 2001).

Teacher Career Satisfaction

When members of a community know more about the knowledge, skills, and beliefs of their community peers, they also have access to greater "funds of knowledge" (Bransford, Derry, Berliner, Hammerness, & Beckett, 2005, p. 65). The more knowledge accessible, the greater the resource base from which to construct new knowledge, and the more complete one's transmission of that knowledge. "Collaboration among teachers has been identified as one of the most important features of a school culture that fosters professional development, teacher satisfaction, teacher effectiveness, and student achievement within a school" (Puchner & Taylor, 2006). Yendol-Silva and Dana (2001) added collaboration develops a respectful, interdependent culture among teachers. Despite these benefits, the culture of many schools can be described as isolationist (Gersten, Gillman, Morvant, & Billingsley, 1995). School cultures with an existing social learning focus maintain a commitment to working together, but "shifting the isolationist culture of schools to a more collaborative culture can be difficult" (Puchner & Taylor, 2006, p. 922).

A mixed-methods study of 24 school-wide professional communities examined the issue of teacher interaction on the events involved with the restructuring of a school (Louis, Marks & Kruse, 1996). According to the researchers, the professional climate among teachers at the schools had a marked effect on the successes and failures of school restructuring efforts. A sense of "school-wide community" was found to be possible in all schools, regardless of the grade levels served, or the size of the student population. Much of this was attributed to the unification

of faculty around a common student-centered goal. Teacher participation in the school governing structure resulted in more discussion about teaching and learning, and differences in opinion added to the richness of the conversations. While not explicitly examined in the study, smaller groupings of teacher communities did exist in the school climate and did provide an opportunity for reflective dialogue, collaboration, support, and professional development.

Lesson study is a collaborative tool teachers can use to plan, observe, analyze, and refine their teaching. Developed by teachers in Japan, this method has demonstrated great success at improving teachers' knowledge and practice, and students' learning (Puchner & Taylor, 2006). Researchers collected data on five mathematics-based lesson study groups. While some teachers became frustrated with the method's structure, Puchner and Taylor (2006) shared findings suggesting lesson study can be a valuable tool for encouraging teacher collaboration and expanding teacher self efficacy. The teachers in this study were challenged by the iterative process of refining their work publicly. By working together, they pooled their knowledge and skills in a new, professional way and gained positive results. These results included improving student learning, expanding their content area knowledge, and viewing themselves as more professionally competent. Trying to equalize the concepts of collaboration and autonomy was an issue with which teachers struggled. Researchers shared in order to achieve the benefits of the collective, respect for the individual must be observed.

Through interviews of beginning teachers, induction mentors, mentor coordinators, and head teachers, a case study of the induction practice at eleven schools was used to expose the school cultures within which new teachers found themselves working (Williams et al., 2001). The data collected were used to establish a continuum of three school cultures ranging from a culture of individualism, to one of structural collaboration, and finally to one of spontaneous

collaboration. In the culture of *individualism*, the professional growth of new teachers was placed in jeopardy because of limited opportunities for teacher learning. Some beginning teachers felt separated from their mentors either physically, due to geographic distance; or philosophically, due to their mentor's lack of agreement with some strategies for support. New teachers experiencing an individualistic culture their first year, planned to terminate their employment at the end of that year and seek work in a new school for their second year. In the culture of *structural collaboration*, new teachers were provided formal opportunities for development. These opportunities were based on programmatic requirements and often resulted in fulfilling the needs of the program rather than those of the new teacher. The growth experienced in this regimented atmosphere was positive, as teachers no longer felt isolated. However, the collaboration failed to reach teachers' needs beyond the constraints of the program. Finally, in the culture of *spontaneous collaboration*, new teachers experienced a school environment where opportunities for collaboration evolved in the moment. These opportunities were shared among the faculty, rather than handled solely by those bearing the responsibility for doing so. Experiences related to this type of school culture generated the greatest levels of career satisfaction in participants.

Johnson (2003) analyzed data on the efforts of four Australian schools to promote teacher collaboration. The comparative case study design collected data from 24 teachers using a questionnaire and interviews. Based on the participants' experiences, the researcher identified three key advantages and four key disadvantages of collaboration; each bearing the potential to impact the culture of a school. The three advantages identified by Johnson included: (a) provide moral support to teachers as they perform their work responsibilities, (b) lift up teacher morale and encourage greater teacher participation in the school, and (c) offer opportunities for teachers

to learn from one another and expand their content knowledge and understandings of teaching and learning. Although the benefits of collaboration can enhance a school's culture and the teachers' level of satisfaction, Johnson determined the disadvantages have the potential to destroy them. Teacher collaboration can also (a) bring about more and difficult work which teachers may not be willing or ready to perform, (b) create an overwhelming pressure for some teachers to conform to beliefs, practices or decisions they may not support, (c) lead to teacher conflict as teachers struggle to negotiate meaning and practice, and (d) develop a competitive environment where teachers create subcultures and fiercely defend their beliefs and actions from others. Identifying teachers' experiences with collaboration, the researcher made it clear special measures must be taken when planning teacher collaboration opportunities to invoke teacher learning and reform. While collaboration has the capacity for powerful change, serious thought should be given before making it prescriptive for all teachers.

Teacher Retention

The retention of quality teachers is an outcome important to students (Joerger & Bremer, 2001) and schools (Ingersoll, 2001b) alike. Teaching is described as an uncertain profession (Johnson & Birkeland, 2003), a condition which "fuels a teacher's dissatisfaction" (Johnson & Birkeland, 2003, p. 584). When teachers are dissatisfied, they often leave (Ingersoll, 2001a). Many factors are found to contribute to a teacher's decision to remain in the classroom (Gehrke & McCoy, 2007b).

Kardos and Johnson (2007) surveyed 486 first and second year teachers working in four states about the experiences they had working in their schools and with their colleagues. The participants shared many of them worked in isolationist cultures where they were expected to perform at the level of an expert teacher, without having received support from a school professional development network. They also reported few teachers within their schools worked

toward a shared school mission and failed to share in the responsibility for all students at their schools. These findings expose the neglect new teachers endure and highlight the situation must be addressed in order to retain teachers beyond their early years of teaching.

Boone and Boone (2007) addressed the issue of teacher retention in agricultural education from the perspective of why teachers continue to teach. The study used a qualitative survey to examine the factors which compelled 53 agriculture teachers in West Virginia to teach and draw satisfaction from their work. The three most cited motivational factors participants experienced as beginning teachers included: the students and student success, financial aspects of the profession, and the professional brotherhood in the agricultural education profession. The factors currently motivating teachers to teach were similar to the aforementioned, including: (1) helping students, (2) educating students, (3) enjoyed teaching agriculture education, (4) student achievement in FFA, (5) financial reward, and (6) professional brotherhood. The appearance of professional brotherhood demonstrates its importance throughout the various stages in the career and the degree to which teachers value the impact this collaborative component has on their willingness to remain in the profession.

In a study by Johnson and Birkeland (2003) the degree to which a school is organized provided a glimpse into a new teacher's willingness to stay. This longitudinal interview study of 50 new teachers identified their reasons for staying at their schools, for moving to a new school, or for withdrawing from teaching all together. Outside of those factors which cannot be controlled (ie. family issues, financial situations, etc…), those who decided to leave the profession did so for reasons including: lack of support for new teachers, overwhelming demands and expectations with little hope for improvement or success, inappropriate teaching assignments and loads, and inadequate resources to achieve success. Those who decided to move to new

schools did so for reasons similar to the leavers, including: searching for schools where they could be effective, searching for schools which were a “good fit”, searching for schools with a collaborative and collegial culture, searching for schools with fair and appropriate teaching assignments and loads, and searching for schools more affluent than their previous sites. The teachers who decided to remain at their schools were divided into those who were unsettled or unsatisfied and those who were settled or satisfied. Despite conflicts with the principals and their colleagues, difficult assignments, a lack of resources, and frustration with the discipline policy, the unsettled teachers chose to stay because the positive factors of their school sites balanced out the negative. The settled teachers shared several reasons for their willingness to stay at their schools, including: supportive principals and colleagues, the high value schools placed on improvement, a nurturing school environment with special programs in place for assisting new teachers, and school-wide efforts for encouraging parental support. According to this study, those schools which encouraged collaboration among their teachers experienced greater teacher career satisfaction and ultimately greater teacher retention of new teachers following their first year in the classroom.

Gehrke and McCoy (2007b) examined where beginning special education teachers sought support during their first year of teaching. The five teachers interviewed in the study often looked to other teachers for assistance during the induction period. Those other teachers included their mentors, other special education teachers, and specialists with connections to special education. Through interaction with other professionals, the teacher participants confessed they received emotional support, were able to broaden their educational focus beyond mere survival, and learned how to maintain high expectations. These elements contributed to the participants’

generally positive regard for the profession, and were important to their decisions to remain in teaching the following year.

The impact of teacher collaboration in other content areas and grade levels has been shared (Achinstein, 2002; Goddard et al., 2007; Hargreaves, 2001; Johnson, 2003; Manouchehri, 2002; Williams et al., 2001) but agricultural education literature offers relatively little on the matter. The unique structure of the agricultural education program model presents agriculture teachers with the expectations of teaching classes, advising an FFA chapter, supervising SAEs, and managing the inner-workings of the program (Talbert, Vaughn, & Croom, 2005). These additional responsibilities are not expected of teachers in other areas and can potentially lead agriculture teachers "to a lack of self-confidence, confusion, frustration, and isolation" (Fritz & Miller, 2003; Greiman et al., 2005; Walker et al., 2004) should they be ineffective at completing them. Ineffective performance of such responsibilities is known to contribute to increases in teacher shortages (Boone & Boone, 2007; Greiman et al., 2005; Kantrovich, 2007; Wilhelm et al., 2000).

The lived experiences of teachers in the present study provide evidence for further learning about teacher collaboration as the participants have made use of such experiences to successfully complete the early stages of their careers and nestle into their current standings within the mid-points of their careers. An examination of the participants' perceptions of teacher collaboration can advance how secondary agriculture teachers continue to experience the phenomenon.

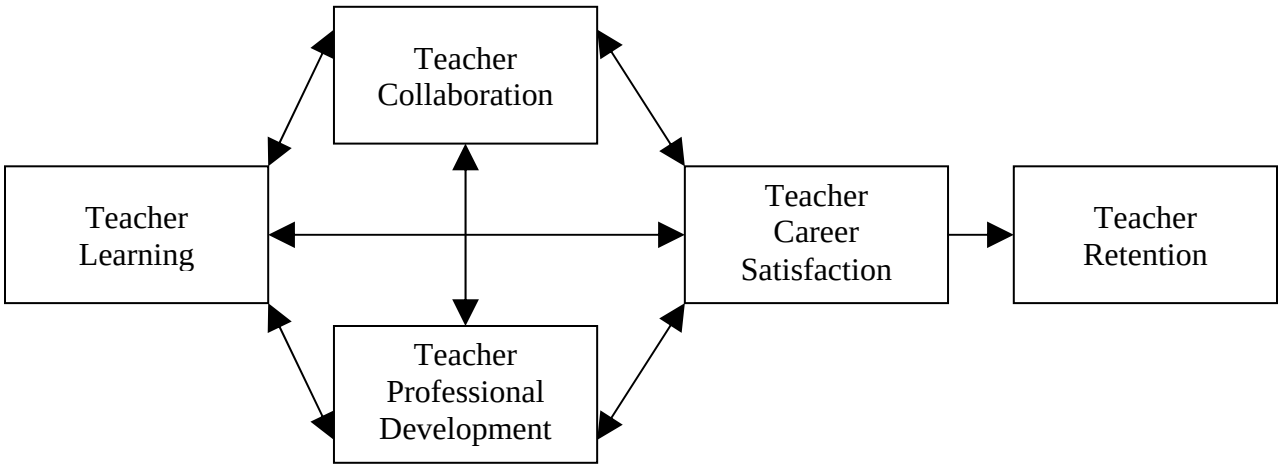


Figure 2-1. Conceptual Model of Teacher Collaboration

CHAPTER 3
RESEARCH DESIGN AND METHODS

Introduction

Positivist research purports "objects in the world have meaning prior to, and independently of, any consciousness of them" (Crotty, 2003, p. 27). This stance requires the researcher to be objective as he or she engages in an unbiased investigation of research questions using the scientific method. The very nature of qualitative research makes pure objectivity virtually impossible. The interpretation of data generated by subjects immersed in the context of the phenomenon carries with it an expected level of subjectivity (Hatch, 2002; Lincoln & Guba, 1985). A qualitative approach was selected for this study in an effort to explore agriculture teachers' experiences and perceptions related to teacher collaboration.

Denzin and Lincoln (1994) defined qualitative research as,

> multimethod in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them. Qualitative research involves the studied use and collection of a variety of empirical materials that describe routine and problematic moments and meaning in individuals' lives. (p. 2)

Hatch (2002) stated,

> Qualitative research seeks to understand the world from the perspectives of those living in it. It is axiomatic in this view that individuals act on the world based not on some supposed objective reality but on their perceptions of the realities that surround them. Qualitative studies try to capture the perspectives that actors use as a basis for their actions in specific social settings. (p.7)

The purpose of the study was to describe the perceptions and experiences of each participant related to the phenomenon of teacher collaboration. The highly individualized research focus lent itself to qualitative methodology, and more specifically, the phenomenological research approach. Phenomenology seeks to discover both what is happening in the lived experiences of participants and uncovers the meaning participants have drawn from

such experiences, to identify the essence of the phenomenon and how it relates to others (Moustakas, 1994).

Details of the research design to be pursued by this study are described in this chapter. Beginning with a description of the phenomenological research approach, the researcher's subjectivity statement follows. The measures of validation and procedures for participant selection, data collection and analysis are also presented.

Phenomenological Approach

Sokolowski (2000) called phenomenology "the science that studies truth" and "the limitations of truth" (p. 185). This idea was shared by Husserl (1965) when he stated phenomenology practiced what other sciences failed to practice because the approach examined the essence of objects, whereas other sciences took them for granted. Marshall and Rossman (2006) expressed the purpose of phenomenology as trying to understand the experiences of a few in an effort to create broader understanding of them. The approach also assumes "there is a structure and essence to shared experiences that can be narrated" (p. 104). For Moustakas (1994), phenomenology

> attempts to eliminate everything that represents a prejudgement, setting aside presuppositions, and reaching a transcendental state of freshness and openness, a readiness to see in an unfettered way, not threatened by customs, beliefs, and prejudices of normal science, by the habits of the natural world or by knowledge based on unreflected everyday experience (p. 41).

Phenomenology casts off inherited meaning and places one's perceptions aside to receive experiences in a new way (Creswell, 1998; Crotty, 2003). This new way of seeing the phenomenon results in richer, more all-encompassing meaning.

Epistemology is the theory of knowledge (Crotty, 2003). As described by Hamlyn (1995), epistemology is the "nature of knowledge, its possibility, scope and general basis" (p. 242). This theory is the foundation for the manner by which the researcher pursues his/her inquiry and

determines the type and value of any newly generated knowledge. Epistemology guides the researcher in determining how knowledge will be shaped. The present phenomenological study is rooted in the epistemologies of objectivism and subjectivism.

The objectivist vein views meaning as independent from consciousness; in existence apart from one's interaction with the world (Crotty, 2003). Phenomenology requires one to revisit an object from a fresh, naïve perspective and see it in a new way (Moustakas, 1994). From this openness, textural descriptions of the phenomenon's meanings and essences are formed. Conversely, the subjectivist epistemological vein suggests one ascribes meaning to an object (Crotty, 2003). The notion meaning is derived elsewhere, rather than through interaction with an object, reveals itself in phenomenology. Structural descriptions are developed to disclose meaning. The structural description is created by the researcher, sharing the elements of the object which act together to develop the experience (Moustakas, 1994). Reality then is found in the universality of the experience through both objective and subjective aspects of the work (Marshall & Rossman, 2006; Moustakas, 1994).

A theoretical perspective anchors a study into a particular world conception, helping one make sense of the surrounding stimuli and better understand "how we know what we know" (Crotty, 2003, p. 8). It guides a study's methodological decisions, serving as the philosophical foundation. The present study utilized interpretivism, a theoretical perspective which "looks for culturally derived and historically situated interpretations of the social life-world" (Crotty, 2003, p. 67). Phenomenology was used to focus this aim of thinking, by setting aside meaning established through customs and beliefs, and attempting "to understand the hidden meanings and the essence of an experience" (Grbich, 2007, p. 84). Phenomenology takes a fresh look at the

everyday, reinterpreting meaning crafted from firsthand experience with a phenomenon (Moustakas, 1994).

Lived experiences are the foci of phenomenological research (Hatch, 2002). Reflecting on these experiences, researchers are better able to describe the various aspects of the experience and identify those elements moving the experience beyond isolation to universal access (Moustakas, 1994). Such questions as, “what is the essence of the phenomenon,” are posed in hopes of uncovering the multiple perceptions to expand the knowledge about, and meaning of, various human experiences (Crotty, 2003; Moustakas, 1994).

The phenomenological approach requires researchers to adopt a new way of viewing the world to permit the emergence of extended and expanded meanings. To maintain the purity of accessed data, the researcher applies the concept of intentionality (Crotty, 2003). Intentionality has the researcher set aside the existing set of beliefs and ideas to focus and reflect on the phenomenon from the participant’s vantage point. This stance also results in a more thorough description of the experience and the essence of the phenomenon (Moustakas, 1994). To realize these benefits, the researcher created a written statement of her experiences with the phenomenon of collaboration, produced in the form of a researcher subjectivity statement.

According to Nealon and Giroux (2003) the interpreter, which in this case is the researcher, is part of the meaning making process. By making known the personal experiences and knowledge related to the inquiry, the researcher can better understand the lens through which he or she makes all methodological decisions (LeCompte & Preissle, 1993) and open himself or herself to new ways of seeing (Moustakas, 1994). The subjectivity statement acknowledges the researcher’s existing knowledge related to the phenomenon and through bracketing, allows the researcher to distance himself or herself from the preconceived beliefs which compel a

researcher to render judgment (Grbich, 2007; Moustakas, 1994). Such a tool also makes it possible for the reader to contextualize the conclusions offered by the researcher (Creswell, 1998; Lincoln & Guba, 1985; Moustakas, 1994).

The phase encapsulating this altered vantage point is called Epoche (Marshall & Rossman, 2006; Moustakas, 1994; Sokolowski, 2000). Epoche produces purity of vision, moving the researcher away from his or her customary perspective (Moustakas, 1994). Although important, completing a statement of currently held beliefs marks just one aspect of Epoche (Marshall & Rossman, 2006; Moustakas, 1994; Sokolowski, 2000). Less of an act and more of a process, Epoche alters the way a researcher approaches the work from the moment when he or she captures preconceptions on paper, continuing through analysis when the researcher considers his or her beliefs against those shared by the participants (Marshall & Rossman, 2006).

Following the phenomenological approach, this study seeks to describe the phenomenon of teacher collaboration from the perspective of secondary agriculture teachers. By providing secondary agriculture teachers the option to share their perceptions of teacher collaboration, a richer, fuller picture of teacher collaboration will be formed (Moustakas, 1994).

Researcher Subjectivity

The subjectivity statement expresses the researcher's proximity to that which he or she is examining (Glesne, 1999). As an agricultural educator and researcher pursuing a phenomenological study of secondary agriculture teachers' perceptions of teacher collaboration, I have bracketed many experiences from my own life to examine the phenomenon from an unbiased vantage point (Crotty, 2003). The study's subjectivity statement follows.

My interest in secondary agriculture teachers' perceptions of teacher collaboration stems from my own experiences in the profession. As a preservice teacher in my university's teacher education program, I spent a great deal of time working independently due to my status as a

commuter. I found it easier to work alone rather than trying to coordinate schedules and track down others to work together. This practice served me well throughout most of the undergraduate program, but once I enrolled in the discipline's methods courses, the increased expectations and large quantities of new work presented a challenge I was not fully equipped to handle alone. Realizing I needed to work smarter rather than harder, I opened myself to the possibility of working with others to devise the best strategies for planning instruction. These collaborations, while brief, did result in richer experiences for classroom teaching and learning.

At the earliest stage of my career, I felt extremely insecure because of my limited content area and pedagogical knowledge bases. Moving into the role of student teacher did not ease the anxiety. In fact, my time as a student teacher brought new challenges for which I had a solid foundation but lacked the confidence and the competence to successfully complete. During the student teaching experience, my role consisted of absorbing as much as I could from my cooperating teacher and other teachers in the department. Since each teacher on site had been teaching for no less than four years, the relationships I forged seemed to be more one-way. As mentors, I thought they were imparting their knowledge of how to teach upon me since I had little with which I could reciprocate. It was not until the end of my time with this group, I learned the mentoring relationships I had come to appreciate were indeed collaborations. As a new professional, my questions and new ways of doing things caused them to reflect on their own beliefs and practices. The result was professional dialogue they would not have had without me being there.

During that same time, Internet availability in the schools was sketchy at best, so access to my student teaching peers was limited. Two opportunities for collaboration did present themselves related to program management and career development event responsibilities. The

school had hired their previous student teacher to teach part time. Due to a limited schedule, the two of us partnered to devise a recruitment plan for the department. This plan was to be executed in the feeder schools just before their high school registration day. Being on a relatively even playing field regarding knowledge, skills, and experience, the two of us developed a sound product resulting in the successful recruitment of new students for the following year.

The challenge of collaborating with my master teacher in coaching students for the parliamentary procedure career development event was one I relished. Having been a contest participant throughout my high school career, I had a wealth of content area knowledge, as well as those soft skills necessary to move a decent team to contender status. Pairing with my talented master teacher, we trained the state-winning novice team and a senior team which finished in the top-five. Such experiences helped me understand the value of sharing information and blending skill sets as the rewards could be great.

My first teaching job was as a horticulture teacher in one of California's largest agriculture programs. I was hired with two other new agriculture teachers, bringing the total number of teachers in the program to seven. As a member of a large and specialized staff, the responsibilities were great but so were the opportunities for collaboration. In my first year, I teamed up with another teacher with a passion for parliamentary procedure to develop students for that particular career development event. We were able to share resources and strategies, resulting in a polished, knowledgeable team of novice participants. We also advanced our own expertise of the event, developed a reputation as well-qualified judges for regional and state levels, and advertised ourselves as a resource for new teachers wanting to get their teams into the event.

I was asked to teach the introductory agriculture course offered to first year agriculture students during my first year of teaching. The course had three sections for each of the three periods it was offered during the day. Due to the unique arrangement, students would engage in a series of three, six week sessions each semester and rotated among the three classrooms where the course was taught during their assigned period. This allowed students to get to know three different teachers in the program and permitted the teachers to get to know many more students than they would otherwise. The arrangement greatly enhanced department culture. With three teachers sharing three different classes of students, communication and collaboration were critical. We each regularly discussed classroom protocol, student needs and progress, course calendars, assessment practices, as well as our own impressions, successes, and challenges. Occasionally, we would plan lessons together and share resources but these opportunities were rare since we each taught different portions of the course content. Experiencing such powerful collaboration with other teachers as part of my regular responsibilities my first year in the profession made my transition from preservice teacher to early career teacher easier.

I also had the opportunity to work with the department chairperson on developing courses in agricultural leadership and floriculture. While the department chair had taught both courses in the past, she had not been satisfied with the results and was looking for fresh ideas. Together, we crafted two courses based on sound learning theory and current technical knowledge. Our efforts led to products which were accepted by the school board and courses students were thrilled to take. My work on the courses presented the opportunity to work with other teachers in the state, as we sought to get the floriculture course approved for meeting the art requirements for university entrance. Collaborating with other teachers on developing proposals and presentations

did much for broadening the floriculture curriculum in the state, but it also served to open conversations among teachers who share a common talent and passion.

Collaboration did not stop with FFA and classroom instruction. As the advisor of the dairy goat SAEs, I knew little of how to guide students in their management of these animals. By asking questions of the other teachers, I finally tracked down a middle school teacher in the district possessing rich experience in the management of dairy goats. As an operator of her own goat dairy, and my background as a supervisor of SAEs, the relationship quickly morphed into one where we each played a contributory role. While I was the official SAE advisor based on my position with the school, we worked together to guide the students in their general care and decision making regarding the animals. We located resources, shared new knowledge we accessed, worked together at shows to lighten the workload and even created a dairy goat handbook for use in the program. Together, we advanced our knowledge but we also advanced the potential each student achieved by the pairing of our minds.

The chance to work with agriculture teachers from across the country came through projects facilitated, and in some cases sponsored, by the National FFA Organization. These projects included the New Teacher Survival Kit, LifeKnowledge curriculum development, and the Delta Conference for professional development. Collaborative conversations led to collaborative activities, as I became an active participant with other educators in crafting curriculum, resources, and professional development for use by other teachers in the profession. The products developed were richer and fuller than what could have ever been produced by one individual acting independently. The relationships based around the New Teacher Survival Kit and the LifeKnowledge curriculum projects resulted in products distributed to teachers around the country. The Delta Conference permitted me the opportunity to work with practicing teachers

and help them design individualized professional growth plans for promoting their personal growth. This act was a true collaboration between myself and the teacher, as well as myself and the other program facilitators, as we were active participants in the work that transpired.

The Omega Conference brought graduate students and postsecondary agricultural educators together to learn and work. With my team, we shared our expertise and used it to organize knowledge for the purpose of crafting a white paper on an assigned topic. Since each member of the team was teaching in a different state, the chance collaborative relationships would form on their own was not likely. We relied heavily on email and a group blog to stay organized and complete our charge. The group brought the final work to the profession through the publication of a white paper and a professional development workshop for presentation to other Omega participants.

Following my time in the secondary classroom, I joined the faculty of a California university as a lecturer in agricultural education. I sought the advice of several well-respected teacher educators in the hopes we might generate ideas and direction for the classes I was assigned. This move proved to be a productive one, as together we developed some innovative ways to teach the existing courses. These changes were made to better meet the needs graduates faced when they started teaching. I was also responsible for assisting with the college outreach activities. Through collaboration with the university's assigned outreach coordinator, we designed a plan for the activities of the college ambassador program. Through implementation of the plan, the university not only saw an increase in the level of preparation and number of college ambassadors, the numbers of students choosing a program major within our college also increased.

I had the chance to collaborate with teacher educators and secondary teachers of agriculture in developing the California Subject Examinations for Teachers. This exam was to be an option for new teachers seeking to meet the state's requirements for teacher certification. Together, we discussed philosophical reasons underpinning inclusion or exclusion of various topical areas for the test, and shared rationale regarding issues of relevance and fairness related to specific test items. Together, the team produced a testing option which reflects a degree of the rigor expected by teacher education programs, and a portion of the content agriculture teachers would be expected to know. While in no way a "perfect" test, the collaborative effort does receive the stamp of approval by each agricultural teacher education program in the state.

My experience as a graduate teaching assistant at the University of Florida has provided me the chance to collaborate with a variety of individuals leading to new learning for me and many others. I have collaborated with other graduate students on the development and delivery of workshops to increase the audience's technical and pedagogical knowledge. I have also collaborated with faculty in planning professional development events to include a wider array of choices from which participants could choose. The opportunity to collaborate with faculty on research papers has not only helped to advance our own expertise but also led us to contribute to the professional knowledge base. My collaboration with other graduate students and faculty interested in qualitative research gave me an opportunity to learn about the methodology beyond my coursework and seek answers to lingering questions. The chance to collaborate with practicing teachers and provide support for novice and early career teachers to learn about, and begin to fulfill, the responsibilities of the agricultural education profession helped address significant state needs.

Through reflection, I have traced my experiences with teacher collaboration across my professional career. These instances express the connections and strong desires I have for engaging in teacher collaboration. The experiences in which I have been immersed have helped me navigate an understanding of the responsibilities I believe to be part of the agriculture teaching profession. I also believe the many forms of teacher collaboration in my experiences have helped me develop a strong professional foundation. In fact, the phenomenon of teacher collaboration has helped me find enjoyment in, and maintain a commitment to, a career in agricultural education.

Methodology

The methods selected for use in this study were found to be in alignment with the foundations of transcendental phenomenology. Transcendental phenomenology involves the search for universal truths related to experience and follows the process of Epoche, phenomenological reduction and structural synthesis (Grbich, 2007; Marshall & Rossman, 2006; Moustakas, 1994). Moustakas (1994) and Sokolowski (2000) professed both the philosophical underpinnings of the approach, as well as the technical and logistical aspects of conducting such research. The structure for formulating and analyzing this study follows, illustrating adherence to the transcendental phenomenological approach.

Characteristics of Phenomenological Methods

Transcendental phenomenology begins with Epoche, reflecting upon one's assumptions or biases as they relate to the phenomenon of interest, for the purpose of suspending judgment (Creswell, 1998; Grbich, 2007; Moustakas, 1994; Sokolowski, 2000). Prior to beginning the study, the researcher acknowledged all prior experience and points of view related to interaction with the phenomenon. Any related experiences or perspectives were captured in the written form, as the subjectivity statement. The document was used as a way to express how the

researcher defined meaning of the everyday phenomenon of collaboration, assisting her with setting it aside throughout the study. This act helps the researcher remain open to new ways of seeing through the lens each participant carried regarding collaboration.

Bracketing the researcher's experiences, the phenomenon of teacher collaboration is cast in a new light, able to be revisited through new eyes. The approach of pursuing the unconventional, helped the researcher describe the phenomenon more fully than could have been realized otherwise (Crotty, 2003). The subjectivity statement in the current study ensured the work presented featured the experiences of the study participants, rather than those of the researcher. This position lends focus and purity to the work (Moustakas, 1994).

Phenomenological reduction is the second portion of the method. Horizonalization began the process with the researcher reviewing the transcripts lending equal weight to each and every incident offered by participants (Moustakas, 1994). Thematic clusters of data were then produced, beginning with the identification of all data relevant to the topic. Relevant data were then combed for statements which were not repeated or overlapped. From these invariant themes, the researcher createed a textural description of the meanings and essence of the phenomenon for each participant and across participants (Marshall & Rossman, 2006; Moustakas, 1994). Such a description presented the open perspective of what happened in each participant's case related to the phenomenon. The researcher carefully followed the process to arrive at a composite textural description.

Finally, imaginative variation brought the transcendental phenomenological approach to a close. The purpose of this step was to create a structural description describing how the phenomenon was experienced by each individual participant, as well as across the sample (Creswell, 1998; Marshall & Rossman, 2006; Moustakas, 1994). Inspecting all possible avenues

of meaning, the researcher was able to present "a picture of the conditions that precipitate an experience and connect with it" (Moustakas, 1994, p. 35). Additionally, the composite structural description was blended with the composite textural description to create a textural-structural statement. This key piece demonstrates the essence of the phenomenon; returning to the foundation of knowledge and exposing the universal structure originally sought by the phenomenological approach (Creswell, 1998; Moustakas, 1994).

Participants

Convenience samples do little for the credibility of a study (Hatch, 2002; Ritchie, Lewis, & Elam, 2003). Qualitative researchers make use of non-probability sampling strategies to focus the study from its inception, identifying specific cases demonstrating characteristics of interest (Patton, 2002; Ritchie et al., 2003). These purposive techniques "provide maximum insight and understanding" of what the researchers are studying (Ary, Jacobs, Razavieh, & Sorenson, 2006, p. 472). Criterion-based sampling, in particular, involves determining participants based on the goal of the study and consequently, works well with phenomenological studies (Creswell, 1998).

> Members of a sample are chosen with a 'purpose' to represent a location of type in relation to a key criterion. This has two principal aims. The first is to ensure that all key constituencies of relevance to the subject matter are covered. The second is to ensure that, within each of the key criteria, some diversity is included so that the impact of the characteristic concerned can be explored. (Ritchie, Lewis, & Elam, 2003, p. 79).

With this goal in mind, criterion-based sampling was used for the present study, to identify three participants willing to share their perceptions and experiences with teacher collaboration.

The sample size of qualitative studies are usually quite small, averaging between one and 20 participants (Creswell, 1998; Dukes, 1984; Kuzel, 1999) to provide a richer glimpse into the participant's experiences. Phenomenological studies typically address the experiences of "up to ten" (Creswell, 1998, p. 65). In the present study, three participants were selected, based on their reputation as collaborators with other teachers. The group was also representative of teachers

who would be considered to be in the expert and distinguished phases of the Steffy, Wolfe, Pasche, and Enz (2000) Life Cycle of a Career Teacher model to ensure they had a number of experiences from which they could draw. Since novice and emeritus teachers are not employed in an agricultural teaching position, they were not part of the population available for selection into the sample. Likewise, teachers at the apprentice and professional phases were also dismissed because of their relative inexperience in the profession and the assumption they would have fewer collaborative encounters to share.

The agricultural education faculty from the University of Florida formed an expert panel charged with the purpose of generating the criterion-based sample. These four individuals were targeted because of their relationships with agriculture teachers throughout the state. The faculty knew the teachers as professionals, inside the classroom as well as outside, and could roughly ascribe each potential participant to a particular phase of the teacher career model (Steffy et al., 2000). To assist the expert panel with their task, brief descriptions of each phase were provided. The Florida Association of Agricultural Educators: 2007-2008 Directory was used to identify teachers meeting the additional selection criteria requiring participants be traditionally certified in agricultural education and have the majority of their teaching experience at their current place of employment. This combination of selection criteria helped ensure the generation of a more homogeneous participant sample, as well as a more focused and detailed description of the phenomenon of interest (Hatch, 2002; Patton, 2002). The letter to the expert panel is found in Appendix A.

The five teachers preliminarily selected by the expert panel were contacted by email outlining the purpose and value of the study, the significance of their role as a participant, and the methods to be used in the collection of data. They were also asked if they agreed with the

expert panel's assessment of their being qualified to share their experiences related to the phenomenon of teacher collaboration. The three participants electing to participate received further correspondence via telephone and email. Such interaction focused on establishing interview logistics. The recruitment email is found in Appendix B.

Data Collection

Research questions were established in accordance with the study's interpretivist theoretical perspective. Interpretivism positioned the researcher and the participant in a situation where the two generated meaning together based on the information reported by the participant (Hatch, 2002). This characteristic lent itself well to the interview technique of data collection (Marshall & Rossman, 2006).

Seidman (2006) stressed the importance of establishing a structure prior to beginning the interview process. A semi-structured interview guide was created and reviewed by a panel of experts comprised of members of the researcher's doctoral committee and an expert in qualitative methods, to provide a general framework of open-ended questions to be asked consistently of all participants (Hatch, 2002; Kvale, 1996; Marshall & Rossman, 2006). The goal of this format was to provide participants an opportunity to share their perspectives without the researcher's perspective influencing them (Crotty, 2003; Kvale, 1996; Marshall & Rossman, 2006). The questions addressed the types of collaborative experiences the agriculture teachers shared with other teachers and how they would describe the experiences. Specific follow-up questions were posed to individual participants as they presented themselves and were relevant and appropriate to the discussion (Kvale, 1996; Patton, 2002). Maintaining an open rapport drew each participant's unique interactions and perspectives regarding their experiences with the phenomenon of teacher collaboration. The interview guide, informed consent, and all participant

communication were submitted to the Institutional Review Board (IRB), gaining approval. The interview guide is found in Appendix C.

Following IRB approval, the interview guide was piloted with one agriculture teacher from the pool of five recommended by the expert panel, before use with the study participants. This measure confirmed the interview guide asked the most important questions related to the study's purpose and provided a focus for the ensuing conversations, as well as provided the flexibility to pursue specific themes emerging from the data (Kvale, 1996). Patton (2002) stated, "The purpose of interviewing, then, is to allow us to enter into the other person's perspective" (p. 341). Upon signing an informed consent, study participants engaged in dialogue with the researcher regarding their experiences with teacher collaboration.

Based on the desire to describe each participant's perspectives of, and personal experiences with, teacher collaboration, in-depth interviews were used to access the data (Lewis, 2003). Seidman's (2006) description of interview protocol was used as a foundation for the study's primary data collection. The method also helped establish and maintain rapport between the researcher and each participant. Prior to the start of each interview, a briefing was given to discuss the study's purpose, the researcher's role, and the role of the participant. Any initial questions the participant had were addressed in the briefing. During the interview, the researcher implemented a variety of active listening strategies such as head nodding and the use of follow-up questions to help the participant openly share the details of his or her experiences with teacher collaboration (Hatch, 2002). A debriefing session followed the interview to review the major points made by the participant and answer any lingering questions he or she had.

The interview method served as the primary data collection method with nine interviews conducted from October, 2007 to December, 2007. A digital audio recording device was used to

capture each conversation for transcription purposes (Bogdan & Biklen, 1998). For greater depth of inquiry, the observations made by the researcher during the interviews were captured in field notes as the secondary data source (Arthur & Nazroo, 2003; Hatch, 2002, Marshall & Rossman, 2006; Patton, 2002). The researcher made note of the setting and participant behavior, as well as any researcher insights, to assist with developing probes (Bogdan & Biklen, 1998; Poland, 2003), focusing the interview (Marshall & Rossman, 2006) and analyzing the data (Patton, 2002). The opportunity to memo was a necessary outlet to minimize the chance of introducing any personal bias which might sway the interview and assist in further data analysis (Poland, 2003).

Phenomenological studies utilize a tradition of in-depth interviewing (Marshall & Rossman, 2006; Moustakas, 1994). Seidman's (2006) phenomenological interviewing technique was deemed an appropriate data collection method via its three-interview strategy. The technique describes "the meaning of a concept or phenomenon that several individuals share" (Marshall & Rossman, 2006, p. 104). It also permitted the researcher to build rapport with participants because each interview provides a basis for, and insight into, the next (Marshall & Rossman, 2006; Seidman, 2006). Seidman's technique was used to collect data for the study. The three-interview approach provided the foundation for uncovering the structure and essence of the experiences each participant had with teacher collaboration.

The first interview associated with the Seidman (2006) technique was intended to reveal a focused life history, contextualizing the phenomenon and eliciting details related to the participant's experiences. In this session, the researcher chose to have the secondary agriculture teacher participants share their experiences with teacher collaboration during their preservice programs. The teachers were prompted to share details of their collaborative experiences as they

related to this pre-professional period, including the time spent completing their teacher education coursework and the time spent student teaching. This decision was made to encourage the participants to recall those early experiences rather than pass them over in favor of those which were more recent and easier to remember.

The purpose of the second interview session was to extract the details of the participants' experiences (Seidman, 2006). The researcher asked for participants to share stories of their experiences with teacher collaboration from when they accepted their first positions to the present day, to evoke rich material. The participants were asked to share how teacher collaboration had shaped their experiences as a teacher. Teachers were prompted to tell about those teachers with whom they collaborated and describe the activities over which they came together. They were also encouraged to try and point to a time in their careers when they realized the benefits of teacher collaboration, and share any challenges they experienced with the phenomenon.

The third interview session was used to encourage reflection (Seidman, 2006). By reflecting upon the impact of teacher collaboration on professional satisfaction, participants were asked to make sense of the interaction among the many factors impacting their present situations. Teachers were asked to consider their perceptions about how they had changed as professionals as a result of their engagement with teacher collaboration. They were also asked to consider the usefulness of the phenomenon and the impact it has had on their willingness to remain in the profession.

The Seidman (2006) phenomenological interview technique recommended scheduling interviews for 90 minutes, with each interview in the series spaced between three days and one week apart. Adherence to this structure is believed to focus the interview while encouraging a

strong rapport between the researcher and his or her participants. Structure was also thought to be critical to the researcher's ability to develop their interview technique. However, Seidman (2006) conceded the structure can be manipulated to meet the specific needs and conditions of the study. Each interview in the current study lasted an average of 60 minutes. Due to the busy Florida agricultural education calendar, most interviews were scheduled from one to two weeks apart. However, in the case of one participant, the span of time between the first and third interviews was three weeks due to the teacher's responsibilities associated with career development event (CDE) scheduling and a major school holiday.

Data Analysis

"Qualitative analysis transforms data into findings" (Patton, 2002, p. 432). Before any data could be analyzed, it needed to be transferred from verbal form into written form (Kvale, 1996). Following the in-depth interviews, the primary data were transcribed from the digital audio recordings (Bogdan & Biklen, 1998, Kvale, 1996). According to Kvale (1996), transcripts are translations of the lived interview experience into the text format and are interpreted differently as a result. Wengraf (2001) described the transference from one form to the other as processing the raw data. To prevent over-simplification of the data through summarization, and account for the disconnect between oral and written speech, all transcription was generated as closely to verbatim as possible (Kvale, 1996; Marshall & Rossman, 2006; Patton, 2002; Seidman, 2006). Conventional notation was used to indicate the occurrence of breaks in conversational flow such as long pauses, emotional responses, stuttering, and mumbled speech. At completion, the transcripts were cross-checked with the interview recordings and field notes to clarify any misinterpretations (Patton, 2002). Transcripts were also submitted to participants to allow them to check for the accuracy of statements. The email sent which asked for their feedback is found in Appendix D.

The researcher elected to use the modified Stevick-Colaizzi-Keen method of phenomenological data analysis (Creswell, 1998; Moustakas, 1994). With the first step, the researcher reviewed the subjectivity statement to refrain from prejudgment prior to analyzing the data. Working by participant, each transcript in the interview series was open-coded. From the open codes, the researcher engaged in what Grbich (2007) called, “a light form of thematic analysis” (p. 88); carefully combing each transcript for verbiage related to the phenomenon of interest. Horizons were generated based on how the individual experienced teacher collaboration (Creswell, 1998; Moustakas, 1994). These groupings of invariant meanings and themes were blended to form a textural description of the experience of teacher collaboration. This description of what happened in the participant’s experience used excerpts from the actual transcripts as appropriate (Hatch, 2002). Upon completion of individual textural descriptions, a composite textural description was written to pool the overarching elements among the documents (Moustakas, 1994).

Next, the researcher reviewed the transcripts by each interview series and crafted the structural description for each participant. The structural description shared how the experience happens for the participants, through the uninhibited eyes of the researcher engaged in Epoche (Moustakas, 1994). This step required the researcher to consider all possibilities regarding those factors or situations impacting the textural qualities of the phenomenon. Again, raw data were incorporated as pertinent to enhancing understanding. A composite structural description was formed from the individual structural descriptions. Finally, a textural-structural description was formed from each composite description synthesizing all meanings and essences forming the phenomenon of interest as perceived by the participants collectively (Creswell, 1998; Grbich, 2007; Moustakas, 1994).

Measures of Validation

Quantitative research addresses the validity and reliability of a study to ensure its rigor and generalizability (Ary et al., 2006). Qualitative researchers defend the rigor of their studies according to measures of validation formed from the credibility, transferability, dependability, and confirmability achieved through the methods (Angen, 2000; Guba, 1981; Mishler, 1990). They do, however; dismiss measures of generalizability in lieu of the in-depth analysis of a phenomenon (Frankel, 1999). Together, the qualitative standards of rigor depict "the degree of congruence between the explanations of the phenomena and the realities of the world" (McMillan & Shumacher, 2006, p. 324), demonstrating the level of agreement between what the participants have done or said and what the researcher has observed or heard.

Credibility relates to the level of confidence in the researcher design and findings, to accurately represent and interpret the data (Ary et al., 2006; Guba, 1981). Several measures were taken to ensure the credibility of the study. Triangulation is an option making use of many sources, methods, investigators, and theories in the hopes of providing evidence to back up emerging themes as well as identifying any inconsistencies in the data (Creswell, 1998; Patton, 2002). Fine, Weis, Weseen, and Wong (2003) described triangulation as the "adding of one layer of data to another to build a confirmatory edifice" (p. 187). This study built its confirmatory edifice by drawing interview data as a primary source and observational field notes as a secondary source. The interview guide was also submitted for peer review and was pilot tested as an external check of the study's tools. Further, peer reviews and member checks were conducted during transcription and coding of interview transcripts to check the accuracy of the data, as well as the researcher's interpretation (Creswell, 1998; Moustakas, 1994). Thick, rich descriptions were used to explain emerging themes and findings, using the participants' own words as appropriate.

Transferability addresses how well the findings from the study sample relate to other groups (Ary et al., 2006). Transferability can potentially occur between groups or contexts highly similar to those described in the study (Lincoln & Guba, 1985; Patton, 2002). Rich descriptions of the participants and the setting, and a clearly documented research process, made transferability possible for this study. Additionally, few criteria were used for participant selection so as not to limit transferability. According to Ary et al. (2006), the reaction of the researcher is a threat to transferability. To circumvent this limitation, the researcher produced a subjectivity statement to communicate any biases related to the phenomenon of interest. Epoche helped achieve the intersubjective validity necessary in phenomenological studies. The process of turning the researcher's focus inward before turning it outward toward the participants, helped with evaluating understandings (Creswell, 1998).

The dependability of a study refers to its trustworthiness, the degree to which the variation of the study can be explained (Ary et al., 2006). In concert with credibility, triangulation is also used to address dependability. Audit trails of all methodological decisions were maintained, complete with the associated raw data (Ary et al., 2006; Creswell, 1998). This resource will provide a path for subsequent researchers to examine the approach taken in this study, assisting with decision making for future work. Audit trails are also valuable tools for determining the confirmability of the research, the chance future research will arrive at similar findings (Ary et al., 2006).

CHAPTER 4
FINDINGS

Introduction

Referenced by pseudonym, this chapter features descriptions for each of the three study participants' experiences with the phenomenon of teacher collaboration. Kevin, Christy and Mark were selected for participation because they each met the selection criteria and demonstrated active partnerships with other teachers. At the time of the study, all three participants were secondary agriculture teachers teaching at the high school level. Kevin, the son of an agriculture teacher, struggled with a self-imposed pressure of having to make his own way as a new teacher. Over time and the opportunity to work with others who craved his input, Kevin became an icon in the profession for building relationships. Christy began her teaching career as one of a few young teachers in the county, and the only female. Having struggled independently as a new teacher, Christy has since taken the initiative to consistently extend herself to other newcomers to the county. These acts of inclusion have created rich networks between Christy and other teachers. Finally, Mark came to the profession by way of a career in another field. His naturally collaborative mindset was unappreciated by his previous employers. Gathering with like-minded individuals brought rich opportunities for refining his teaching practice, supporting his students' learning, and advancing his profession.

A summary of characteristics describing each participant including: years of teaching experience, certification status, number of teachers in their program, involvement in statewide leadership for the profession, description of programs in the county, and a short personal history is presented in Table 4-1 at the end of the chapter. The participants' individual textural and structural descriptions, along with the composite textural and structural statements, immediately

follow. The chapter closes with a textural-structural statement which shares the essence of teacher collaboration from the perspective of the secondary agriculture teachers in this study.

Kevin

Textural Description

Kevin's beliefs and lived experiences as a secondary agriculture teacher working collaboratively with other teachers are explored to provide a description of Kevin's life through the lens of teacher collaboration. Having been a classroom teacher for 16 years with much of that time spent at his current post, Kevin's career has been filled with events which have shaped his feelings about teacher collaboration.

As a high school student, Kevin enrolled in the agriculture program and experienced much success as a member of FFA. "When I was in high school I knew exactly what I was going to do and how I was going to do it." Following his year of service as a state FFA officer, he chose to enter the University of Florida as an agricultural education major. His decision was due in part to the fact both his father and cousin were agriculture teachers, and because he had developed a deep desire to teach as a high school agriculture student. The decision to teach was fairly clear during the time of transition between high school and college since little had challenged his thinking on the subject.

Kevin pledged membership to an agricultural fraternity upon arriving at the University of Florida. It was there he met his "big brother," another agricultural education major. Kevin credited his relationship with Carl as his first teacher-related collaborative experience. Carl had been a student at the university and a member of the fraternity a bit longer than Kevin. Because of the trust which formed between the two, Carl and Kevin often discussed the teaching profession. "We were talking a lot. We had a lot of discussions about the philosophy of agricultural education." The freedom and the breadth of subject matter available to students at

the university often challenged their decisions to teach. To have another with whom he could talk about the tough issues helped Kevin maintain his focus. Once Carl graduated, Kevin felt a sense of loss as there were not many agricultural education majors in the fraternity. He did form a collaborative relationship with another pledge brother who happened to be in the same major but their relationship was different from what he and Carl had. He and George tended to collaborate particularly when it came to coursework like physics.

Kevin confessed at the earliest stages of his teaching career he had few experiences with teacher collaboration. Many of his actions did not demonstrate teacher collaboration as a key element of his espoused platform. While no explanation was offered, Kevin admitted "I just felt intimidated by older men," and the profession was wrought with teachers who could be categorized as such. He had also experienced some disparaging comments made by others with whom he had gone to school. "I was out to prove a point, that I could do it. And I guess the kids I knew had nagged on me at school and made fun of me. So I was proving them wrong. I kind of had a purpose, to prove somebody wrong." The son of an agriculture teacher, Kevin had witnessed his father working independent of other teachers. Kevin's father had come to the classroom having spent no formal time in a teacher education program. Through his own form of trial and error, he made a way for himself as an agriculture teacher. The combination of these factors reinforced Kevin's determination to prove he could make a go of teaching agriculture.

As a student teacher, Kevin formed a strong mentor-based relationship with his cooperating teacher. The two collaborated on a myriad of program-related topics. Kevin's contributions ebbed and flowed based on those topics of which he had greater understanding and confidence. Kevin had very little understanding of animal science concepts, so his role in that course was based more observation and he participated more passively. Conversely, he possessed

a solid knowledge base in the area of plant science so he and his cooperating teacher were able to work together to craft lesson plans for use in the course. “I still have some of the lessons that we wrote. I use ideas from them.” They also shared a common interest in Career Development Events (CDE) and FFA, so they were able to pool their knowledge to further their understandings and work together to improve their students’ performance. “I learned a lot about training a team and having the kids look polished FFA-wise. That was kind of my background and it was hers too.”

Upon receiving his first job, Kevin’s father impressed upon him the fact he did not have to do everything alone. Driven by the will to prove he could be successful, Kevin spent long hours at school to prepare for, and complete, his responsibilities. Much like his relationship with his cooperating teacher, Kevin’s professional relationship with his father was a mentorship. Often, in matters related to content, Kevin would defer to his father to do more sharing but in matters related to pedagogy, Kevin was able to participate more as a contributor. “I collaborated with my dad on making worksheets. He showed me this video collection in the county and it was like a loan system. We wrote my classroom rules. I had a set of rules for the classroom, for the shop, and for the land lab.” He did not participate with other teachers much when it came to collaborating on lesson plans simply because he felt the culture at the time necessitated a teacher crafting his or her own.

> You didn’t talk about that kind of stuff. I don’t know why. You didn’t talk about team teaching or sharing… It was kind of like an initiation thing where they wanted to see you struggle a little bit but not fail. No one gave me a hand out and I’m not one to ask for a lot. The old piece of the Creed, you know, don’t believe in the hand out. ‘When needed.’ I just never figured out when they are needed.

Should a teacher request to work together in preparation for a Career Development Event (CDE), the petition was met with cold refusal.

> They definitely wouldn't share team CDE event material. Oh no, no, no! It was almost to a point it was a joke where if you hosted an event, you locked things up. If not, the teachers were like, 'What's he got over here?' You were in a competition, Why would they share with you?

He also had the opportunity to collaborate a bit with his assigned peer teacher. Darlene was a math teacher whose classroom was next door to Kevin and they shared an office. While she taught a different content area, she had coaching responsibilities just as he did. Their relationship was intended as a mandate by the district but the fact she knew little about his content area limited what she could teach him. This situation caused Kevin to contribute more openly. He desired to invoke drastic changes to his new program and saw great potential for success. Darlene began by acting as a sounding board, another professional with whom he could commiserate. The type of change he wanted to invoke did not come without its share of problems, and the uprisings he experienced in the classroom called for both content and pedagogical expertise. "We talked about motivating students, what to do with disruptive students." Together they formed a competent pair. Soon after exploring this new relationship, Darlene became someone with whom he could craft solutions to the challenges he faced.

Kevin expanded his teaching network by reaching out to the shop teacher soon after Darlene left the school. Because they shared a common language of career and technical education, the lines of communication were immediately opened. Kevin viewed this individual as a mentor teacher of sorts, but when it came to those students they had in common, their relationship became more level. "We'd talk about the kids we shared. The kids we saw coming to class we would ask how each one was doing." Kevin also felt as though he collaborated with the previous agriculture teacher through the lesson plans and other resources he had left behind. While these items were not necessarily things he would use directly, they did give him ideas for crafting new lessons and materials. "I found all kinds of worksheets. I found old hand written

lessons from my high school teacher that were left there. So I used those, and looked at those. I guess I collaborated even though they weren't there." In the days prior to the internet, these resources were very important.

Kevin included collaboration with his students as a prime example of teacher collaboration. The agriculture program in the first high school at which he taught had the reputation of being based on manual labor. Students would grab a hoe and head out to the land lab to work during the class periods. Upon arriving at the school, he realized the students lacked any sense of pride in the work they were doing. He chose to implement a plan which gave the students ownership over their work, allowing them to do more using a "learning by doing" philosophy. "We started doing more things and giving them the chance to say, 'I did that!'" This plan succeeded at building student pride as well as at growing the agriculture program because of the active participation of students and teachers working together.

His work with other teachers in the county contained splashes of collaboration. In response to a district memo requesting accountability regarding extended contract days, Kevin worked with the other agriculture teachers to develop a descriptive listing of responsibilities the group fulfilled using those extra days. "This is what we came up with. It was a big list. The front and back of two, 8 1/2 by 14 pieces of paper. It was a big list and they all liked that." The relationships he forged with George and Tim during their preservice programs continued to provide opportunities for collaboration. They often discussed the challenges each faced when trying to manage their programs and together, devised potential solutions. These exchanges helped Kevin gain a sense of normalcy as they reduced his insecurities as a new teacher. Having the two teachers at schools in close proximity to Kevin's made interactions among them more likely.

After a number of years of teaching at the school he attended as a student, Kevin took a job at a school in a different county, teaching outside of his academic expertise. He was initially hired for a science teaching position, through which many teachers had filtered, and was promised to be moved into the agriculture department as growth occurred. For those major reasons, and to convey his commitment to the school, Kevin linked with the science department chair for support. Mrs. Lawtey was an experienced teacher and occupied the room next to Kevin's. The respect and trust between the two quickly transformed their interactions into strong collaborations. Kevin taught his classes from an agricultural perspective with great success. "I think collaboration finally hit home then because I needed the help of other people, and I needed to ask the science department."

Mrs. Lawtey's perception of agriculture as a science was a foundational element leading the two to share resources, curriculum, and time. "Most labs required certain chemicals. I didn't buy a thing. I went to Mrs. Lawtey and it has always been like that. I would drive her classes on their field trips every year, two and three times a year." The relationship has endured through to the present.

> With the university summer science workshop series, I would come back with notebooks and she wanted to go. She has never looked down [on agriculture] and said, 'Oh, you need to do more science.' She would look through the materials for ideas to use and teach agriculture in a scientific method or other laboratory.

As Kevin transitioned from the science department into the agriculture program, he interacted more frequently with his teaching partner; an icon within the school, the community, and the state. Mr. Peterson was Kevin's first steady teaching partner. While their relationship could be described as unique, the two balanced one another professionally. Kevin had assumed Mr. Peterson would like to have things his way since he was an established teacher while Kevin was just entering his program. However, this assumption could not have been further from the

truth. From the beginning, Mr. Peterson worked to make sure Kevin knew the program was as much his as it was Mr. Peterson's. They also enjoyed informal time together where they could just talk. "It was very freeing… It was neat to have somebody else to talk to." Through conversation, they discovered they share a similar philosophy and work ethic. These two commonalities formed the basis of their program vision of challenging students and guiding their development.

Although the approaches were different, their collaborative efforts always began with listening and brainstorming.

> He'll listen to what I say and make comments and the same with me. I think we brainstorm pretty well. He'll find something, either a lesson or a topic or a piece of equipment, 'What do you think about this Kevin?' Or I'll find one and say, 'You know let's try this, or have you tried that? Better look at this Mr. Peterson.' He is extremely open to new ideas, teaching methods, and technology.

The pair is often approached by the state teachers' professional association to provide workshops and presentations to a variety of audiences, on a variety of topics. "He can open up the audience with some entertaining words and then just hit them with his thought. That is not my style but we complement each other real well."

In an effort to help Kevin expand his expertise in the nursery landscape CDE, Mr. Peterson urged Kevin to call a teacher in a nearby state whose students had experienced success in the national competition. While uneasy with the idea of making such a call, Kevin finally did. Their conversation was extremely profitable as each shared everything he knew about the competition with the other. Instructional resources, processes, and tips about where to get in a practice while waiting to compete at the national contest were all discussed. The telephone conversations even resulted in a face to face meeting at the National FFA Convention.

For quite some time Kevin had been yearning to connect with other teachers. His involvement with the Agricultural Education Leadership Program presented one of the most

powerful events for collaboration with teachers outside of his teaching partnership. The fifteen program participants spent hours of quality time traveling around the state together in a van. The captive nature of their travel time led to lengthy conversations among participants about their experiences within the agriculture teaching profession and within life in general. These informal interactions helped Kevin feel more comfortable with the idea of working with others. Coincidentally the program included a component requiring the group to organize and complete a project with an impact on agricultural education. Although mandated by the program, the participants chose to work on the problem of agricultural education's limited message.

> So what could we do? There was a lot of discussion, some heated, but we finally created a CD which included pre-made PowerPoints an agriculture teacher could give to a guidance counselor or take to the Rotary Club. While the technology was limiting, the content was amazing. It had website links and pictures, templates for thank you letters, templates for getting judges, templates of officer applications, lesson plans, and a wide array of information so teachers wouldn't have to re-create all of it. And so as a new teacher you would have this as a resource. We could say, 'Here, use this. Don't spin your wheels. Don't get frustrated. Open this up. Try it. Use it. Modify it as you need.' …Everyone got to do their part.

His specific interactions and conversations with Margie yielded an especially powerful connection neither had expected. They discovered the differences between their characteristics led them to create a very strong bond. This bond was utilized and tested as Kevin and Margie began the distance master's degree program at the University of Florida. The faculty often encouraged the cohort to consult one another should they need additional assistance with studying. Additionally, many of the assignments associated with the coursework were to be completed in pairs or small groups. In describing their relationship, Kevin shared,

> Talk about collaborating. I got to collaborate with this really neat lady, Margie. I think we became excellent, excellent partners and I never really knew her before. We are really different but we are also really alike and we tease each other. We say we are the Yin and the Yang. She forces me out there and I pull her back just enough to make sure she's composed and everything is exactly the way we want it. On the KAI [Kirton Adaptive Innovative tool], she was at the very front of the line [Innovator] and I was in the very back of the line [Adaptor]. That is when we said, 'Okay, we're partners.'

They worked together throughout the graduate program but their partnership did not end with commencement. Their collaborative relationship extended to other projects. Margie encouraged Kevin to participate with her in the career and technical education professional association "because she thinks there is something I can offer." Most recently, Kevin, Margie, and Mr. Peterson worked together on a state agricultural education license plate program. The trio shared ideas among themselves to ensure their roles contributed to the program's success. They credit the key to their success to the fact no one was "out looking for credit. It is a matter of being involved and helping where we can."

Kevin's collaboration with the teacher education faculty at the university has been mutually beneficial. He provided the university "an opportunity to visit, to utilize, to ask, to see, because they are not in the classroom anymore." In return, Kevin has been able to make use of some of the latest research findings with his students, and gather data about whether or not each would be useful. Together, they have collaborated on some research to be presented to the national agricultural education community. "Putting it all together and submitting it; … nobody else may have felt that same way but it was a big deal to me." For Kevin, his interactions with the university teacher educators have been heightened upon moving to a school in closer proximity to the university and also due to the closeness of his age to theirs.

Kevin counted his relationship with a former teacher among his recent experiences with teacher collaboration. Rosie had been a science teacher at his school but moved on to work for the State Department of Agriculture. Earlier in the school year, Rosie contacted Kevin to discuss a possible research project on which his students could work with her division. The project involved growing a food source for an invasive insect species which was new to Florida. Kevin's

student efforts would provide her division with something to feed the bugs as they researched management strategies.

> We talked about how we could tailor the project to the high school students and why the high school students would be doing it. She came out and taught the students. So now we are growing the plants for the purpose of data collection. The students have been doing a good job and we are providing that division with some real information they would be paying some laboratory somewhere else to do the same thing.

Structural Description

Kevin's perceptions of teacher collaboration have changed as he developed as a teacher. During the preservice and induction periods of his teaching, he had the greatest professional need for mentorship. He needed the opportunity to develop the knowledge and skill sets necessary to become an effective teacher. "I wasn't really concerned about trying to collaborate. …I was just struggling." The majority of Kevin's collaborative interactions with other professionals tended to be within a mentor-based capacity. His needs were often the focus of their time together.

Although Kevin had completed an accredited teacher education program within his discipline, he was plagued by tunnel-vision determination, self-imposed intimidation, insecurity, and a limited definition of collaboration. He had an overwhelming need to prove himself to whomever he viewed as someone he either respected or who occupied a position of authority. The long hours spent at school, and his unwillingness to ask for input from others, evidenced his initial opposition to collaboration. His admission of feeling intimidated by older men and the fact he had limited resources were additional reasons he gave for being closed off from contributing to others. Kevin expressed a narrow view of teacher collaboration at this time, seeing it mainly as a situation where teachers "share resources" and engage in "lesson planning" together.

When Kevin moved to a new school, he had already been teaching a number of years. "By the time I got here [to this school], I think I was able to collaborate more because it wasn't as much of a survival. It was kind of a branching out into a new territory." His general

understanding of the classroom gave him a certain amount of confidence but since he was hired to fill a position beyond his specialty, he searched for a content-area mentor. The time he spent with Mrs. Lawtey was invaluable as he learned there were things he was doing very right, things which also found him respect in her eyes. The idea of being seen as a "vested" member of the school community was very important to Kevin. He believed the image of being vested helped others view him as "worthy of spending time and energy on," that he was "not just a revolving kid coming through." He believed such a reputation captured more "yes" responses to his requests than "no." The collaborative actions between Mrs. Lawtey and Kevin included sharing resources for classes, serving as field trip chaperones, and sharing professional development materials. While still rather limited in his perspective, he did find himself on a more level playing field as Mrs. Lawtey did not "look down" on him or his efforts. Rather, she expressed a desire to use the ideas in her own teaching.

Kevin's interaction with his teaching partner further expanded his understanding of teacher collaboration. Kevin was surprised by the openness Mr. Peterson expressed toward working with others and hearing their ideas. He often took the lead and initiated such interaction between the two, as Kevin mentioned he was not quite ready to assume the lead. Through teaching responsibilities, program management duties, and professional association participation, collaboration between the two teachers was not limited to one context. Kevin mentioned they balanced one another, listened to one another, and genuinely sought one another's opinions about things concerning the program, the profession, and life in general. He learned a lot from Mr. Peterson's style yet it was clear they each had distinct styles and neither wished to be viewed as "the other person" in the department. Overall, Kevin felt being open with others was the most

important lesson he learned from Mr. Peterson. Due to the positive results they enjoyed, he was confident he would continue to see positive results.

Similarly, Kevin's associations with Margie further pushed his collaborative notions to include larger projects, different audiences, and new opportunities for learning together. Born of informal social time within a structured professional development program, and grown through continued interaction, the bond between Kevin and Margie was firmly established. Kevin admitted he rarely initiated their collaborative experiences but this in no way hindered their opportunities for working together. Their deep awareness of the talents, skills, and personal qualities the other possesses lets them each use their strengths to pursue new challenges together. Much like his relationship with Mr. Peterson, Kevin's relationship with Margie yielded positive results and helped him to become more comfortable working with others. The collaborations had a maturation effect on Kevin as he has been able to focus on the issues affecting the agricultural education profession, rather than those which only affect him.

Completing an advanced degree and teaching in a school within close proximity to the university have also expanded Kevin's opportunities for collaboration beyond the secondary school setting. He described his relationships with the university teacher education faculty as richer and more satisfying. Early in his career, Kevin had an "ivory tower" view of the university faculty because of his limited interaction with them and any he did have was purely professional. With younger professors serving in faculty roles at the university, Kevin has felt he can better relate to them. He also felt he has something to contribute to the relationship they share because he feels good about what he is doing. In fact, he often welcomes them to his classroom to visit, observe, teach classes, and conduct research. Writing about the research he conducted with the

help of these same individuals also helped Kevin feel they were engaged in a true collaboration regardless of the paper's acceptance.

Kevin's collaboration with the research community within the hard sciences helped him to further refine his experiences with teacher collaboration. Kevin's connection with a former teacher outside of his subject area, presented him with a collaborative experience intended to expand his students' learning. His collaboration with the State Department of Agriculture resulted in an inquiry project for his students, one based on a contemporary problem in agriculture. For the State, precious data to assist in finding a timely and efficient solution was their reward.

Kevin has valued the impact of teacher collaboration on his professional career saying it has made it more enjoyable. Once he passed the stage where survival was his main objective, he wanted more from his career. Every collaborative experience he mentioned having was positive involving little to no resistance. Any resistance he did encounter came from within as he tried to work out his personal challenge of reliance on others. Kevin described his personality as "very positive" and he mentioned he was "always smiling and saying positive things" and "having a hard time saying, 'No.'" He perceived these characteristics as attractive when working with others yet often downplayed his role in initiating collaboration by crediting his experiences with being with the right people, in the right places, at the right times. His willingness to collaborate with other teachers helped him create a reputation as a collaborator and arrive at a place in his professional life where potential collaborations generally tend to find him without him having to seek them.

Christy

Textural Description

Christy knew she wanted to become an agriculture teacher by the time she was a freshman in high school. Entering the agriculture program as an eighth grader, she had plenty of opportunity to immerse herself in all the program could offer. Christy recalled her participation in the Parliamentary Procedure CDE as her first experience with academic collaboration.

> In Par-Pro you have to work together. There's no way around that. I'm kind of an independent person. You know 'if you want something done, you do it yourself.' I was able to make it work. I understood Par-Pro but a lot of my FFA experience was more of an outlet for me. I was kind of a book worm so to be able to interact, that was my goal.

She found collaboration was about the people with whom she worked and their similitude of goals. She also discovered understanding and acceptance were necessary when working with differences between people. By the time she entered the university, she was armed with both the skills and the willingness to work collaboratively with others. She fully believed "you can't go through life all by yourself; and no man is an island."

At the university, she found a group "of people that had the same interests and the same kind of values as I did." These individuals happened to be in all of her classes as they were the other agricultural education majors. They often spent time together.

> When we weren't assigned a project where we worked together we were always studying together and doing our personal stuff together. It wasn't necessarily that one intern group because there were a lot of my friends in that circle. There were some others that were right before us and some that were after us. It was a nice little group.

As soon as the professors assigned the work, the group would look inward for support and the opportunity to engage in problem solving. Occasionally, some light competition would emerge as the group wondered who would get the best grade. However, Christy mentioned they "really shared a lot and were very helpful to one another."

Christy did not come from an agricultural background and as a result her content knowledge came from her high school and college coursework. She often turned to her group to help her develop the practical knowledge needed for teaching. “I had [raised] a pig and a steer but they knew much more. They had more hands on [experience]. They did stuff that I had no clue about.” They also developed relevant lesson plans together.

> When we were talking lesson plans, you could look at the book and you could sit in your class and have the professor tell you about animal science but is it important for the student to know? What do they need to have? So that’s the stuff we were good at, exchanging that kind of information on what ought to be in that lesson plan; the little side stories and the interesting stuff you know when you have personal experience.

At times, the group consisted of as many as five regular participants but three individuals were key. The bond among the three, including Christy, was sustained through the student teaching experience. “We stayed together and really helped each other out.”

The trio interned in the same county, at “very production-oriented” programs, and encountered many similar experiences.

> We were all having the same experience at different locations because we were all with male teachers that had been in the business at least 25 years. We were all pretty young girls. I had a kid that was 19 in my class and I was 21. That’s a dynamic you just don’t expect. This one girl came into class and everyone was like, ‘Oh, she’s back!’ And I’m like, ‘Back from what?’ ‘Here’s the picture of the baby!’ I wasn’t prepared for those things and neither were the other girls. They had the same kind of issues so we could really relate in that way.

To address these challenges, Christy and the other interns often called one another to reflect on their teaching, to commiserate, to offer tips and to share techniques that had worked in order to create solutions to their challenges. Christy credited the friendship among the interns as reason for the strong bond they shared. While their interactions occurred primarily by telephone, Christy was able to meet them face-to-face at the fair and various CDEs. Such reunions served as time to reconnect and address the needs of the group.

Christy's cooperating teacher, filling the role of a mentor, was careful to introduce her to many of the teachers in the school. "We didn't stay at the ag building and have our lunch. He made me go up to school and we ate with the teachers." He often pointed out how other teachers might be able to help her. Christy admitted many of the introductions did not advance beyond the lunch room, although each teacher seemed friendly. She did however, follow up on her encounter with the math teacher when working to incorporate math into the agriculture curriculum.

> I remember teaching forestry and we did land measurement. I am a logical mind math person so math makes sense to me. The first time I tried to teach it, it wasn't working so my cooperating teacher encouraged me to go talk to the math teacher. We met during her planning period and she gave me some pointers. …She was really nice and very good because she had been a math teacher forever.

Following her student teaching experience, Christy was hired to teach in a middle school. The county was going through major restructuring so while many of the teachers in the school had teaching experience, most were new to the campus. To increase communication and collaboration, teachers were formed into teams according to the students they served. This worked well for everyone except the elective teachers.

> So that was kind of nice. You could start right up and do some things together. The whole middle school concept is all about teams and teachers working together. The whole team concept is all the sixth graders on this team have the same English, Math, and Science teacher. The elective teachers were assigned to a team and we really didn't teach those kids only. We taught every kid!

Teams met two times each week and additional meetings were required. At times, the arrangement was good but at other times it made teachers feel as though "they're meeting you to death."

The school appointed a formal mentor for Christy whom she discovered was a poor match. Fortunately, she met an English teacher on her team who was better suited to provide the support she needed. The relationship which transpired combined elements of collaboration based on their

team roles and mentoring from their one-on-one time. The connection they shared did not address all the elements of Christy's role as an agriculture teacher. Since she was the only agriculture teacher in the school, she had to look to the other teachers in the county for content-specific camaraderie.

Attending her first county meeting, Christy found it difficult to fit in.

> I was the only girl and I was the only young girl. There was one other lady that taught at the exceptional students center so what she was teaching was a whole lot different than what I was doing. It was my first year and I was thinking, 'Oh my gosh! Who can I sit by? Who can I talk to?' There was nobody because they were all men and there really wasn't even anybody young. They all had been teaching for quite a while. They were nice enough but they were not overly friendly to help you.

She listened during the meeting as the presenter explained various expectations associated with paperwork but being the only young teacher in the county, she felt insecure about asking clarifying or follow-up questions.

> It's a lot to absorb what you have to do. 'And this paper goes with this and this is what you have to fill out for that.' The first one I was like, 'Oh, what the heck? I don't know what they're talking about.' Plus, they say the same things every year so even the guy that is leading the meeting is thinking, 'They've heard it a million times.'

Following the meeting, she returned to her school, only to discover there was no one there who could answer her questions since their responsibilities did not require completion of such documents. Rather than asking anyone outside of the school, Christy did her best with what she knew. While she did well in some cases, mistakes were made in others. Due to her inexperience, Christy went almost two years without submitting paperwork for mileage. This error cost her financially as she was not reimbursed for those expenses.

At the completion of her fifth year with the middle school, Christy took the agriculture teaching position at the high school. Christy's relationship with her teaching partner Bill was a source of professional collaboration from the beginning. A two person department, they were fortunate to craft specialized academic paths in the program. They often chose to forego working

together on classroom-related matters because of their distinct instructional foci. Rather, Christy and Bill found their collaboration was generally geared toward FFA and program management.

> We are the advisors of our FFA chapter. It's not me and it's not him. We make the decisions together. We do our fundraising together and it has worked out really well. I couldn't ask for anyone better to work with. When I first started here, we would eat lunch together every day and we would talk about stuff. We don't do that regularly anymore but we often open up the removable wall separating our classrooms after school so we can talk. We have officer meetings monthly and other big events coming up regularly so we talk about them beforehand.

Not only did Christy make a position change during that time, she noted a number of other changes in the county agriculture teaching population. The same year she moved to the high school, a female was hired to the opening she left at her middle school, and another high school hired a woman to fill theirs. The following year her closest collaborator, Shana, was hired to a position. This wave of new teachers presented Christy with professionals who were closer to her age.

> We had somebody to sit with at the ag teacher events. The first year we were all together it was basically work-related collaboration. We talked about 'This is what works for me' and 'This is what we do.' Then we got to be friends and had some outside work contact which solidified the group. We then started talking about things that were work-related but that you probably wouldn't just talk about with your acquaintances. We talked about what we could do to make things different and better, things outside of our classrooms.

Christy's relationship with this group of agriculture teachers continued to progress leading to a number of changes in her work. "We kind of felt out of the loop sometimes so we figured we would do some things that would let our kids get some benefit. We felt the more we knew the better it was going to be for them. We worked together." She had always been a dues paying member of her professional association but had never been a participant. "So, our little group decided we were going to try to get more involved in that kind of stuff. And we did!" She became a member of the state FFA board while another in the group was elected to a leadership position on the state agriculture teachers' association board.

Even as two of the four key teachers left the collaborative group, new ideas for working together emerged with one effort leading to another.

> Working to get on the boards led to the whole curriculum stuff and everything we do now. You get so much from exchanging stories but when you sit down and start to work on a project with someone you can get a lot accomplished. There is a lot that can happen. In fact, I don't think I would have done the whole master's thing if I hadn't had the friends to do it with.

Christy introduced the idea of completing a distance master's program to the group by telling them, "We need to do this." She was able to coerce Shana into applying to the program by telling her, "We ought to take everything we can get." The graduate program encouraged collaboration among students so Christy and Shana worked together whenever they could, studying and completing assignments as a team.

> We did all of our stuff together. Anything we could work together on, we did. When you don't have the teacher and you only have a computer screen with a PowerPoint presentation from which to get the information, you need to be able to talk to someone. If I hadn't been able to talk it out with someone it [success] wouldn't have happened.

To get the most out of their collaboration they often met face-to-face, taking turns driving to the other's home or school to work on assignments.

Extending their efforts to the classroom, Christy and two of the county agriculture teachers in her collaborative group decided to complete a grant application related to the horticulture classes they taught.

> We're not big grant writers. Our county supervisor found this grant and he said, 'Okay, what do we want to do with this?' We thought of some things that were important and we wanted to try to do. We wrote them out as a group and then gave it to the county grant writers to polish. We got the money so something must have worked.

With funds available, the group worked together to align their course curriculum with the state horticultural industry association's professional certification test. This feat required the team to amend their current curriculum by going deeper into some concepts on which they provided only a surface orientation. They also developed new lesson plans for those areas not currently

addressed. The three worked together to plan and facilitate industry, research and university tours to enhance the classroom experience for their students. The work required the three to stay in close contact. Christy said, “I don’t know a week that goes by that we don’t talk by email or on the phone. I might talk to them more than I talk to Bill [her teaching partner]!”

Structural Description

Christy’s professional development has been profoundly impacted by her collaborative associations. A naturally withdrawn yet bright student, Christy knew from the moment she entered FFA as a secondary student that working with others often results in a richer end product. This lesson did not evade her upon graduation. She immediately began forming connections with others during her undergraduate career at the university. Christy had enough self-awareness to realize she would need to force herself to interact with others, no matter how uncomfortable, if she was to grow.

Finding peers with similar values and goals helped her feel more at ease and confident in the new university surroundings. While much of their interaction involved being supportive, they did exhibit signs of a competitive spirit when it came down to the grades each would receive on their assignments. Competition was usually stoked when a member of the class had a passion for a particular topic and genuinely wanted to know more about it. However, it was curtailed when a student had an insufficient level of knowledge to be able to compete as an expert.

Referring to her preservice group as “friends,” Christy and the other members of the group had a relationship based on trust. They often shared thoughts and ideas when planning their lessons, going beyond mere content and including personal stories, to motivate their students’ learning. Even when they parted ways and commenced student teaching, each regularly engaged with their cohort peers on a professional level by reflecting openly about their performance, challenges, and goals for developing their identities as teachers. The practice was successful

among this group as they were on a level playing field, feeling comfortable with one another and each possessing a relatively similar degree of expertise in the field of teaching and learning. However, because of their different experiences and interests, each had unique insights to share.

The mandated collaborative teacher team structure infused within the middle school presented Christy with a dichotomy. On the one hand, the experience allowed her to work closely with teachers from other content areas on school issues. On the other hand, the demanding meeting schedule and arbitrary placement of elective teachers presented a rigidity which did not serve her professional best interests. The mentor program was another mandated effort demanding her to forge collaborative ties with other teachers. Although the first match did not "take," Christy enjoyed much success with her self-identified mentor, the leader of her teacher team. Despite her inability to access the help she needed related to her specific subject-area responsibilities, she felt isolated as no teachers or administrators on her campus could provide her with the direction she desperately needed. Her unwillingness to ask for help resulted in major challenges related to county paperwork. As a result, she made a number of mistakes which could have been avoided had Christy taken the initiative to approach another agriculture teacher in her county.

In Christy's defense, the county agriculture teacher culture seemed closed. Her first experience in their company was intimidating since she was the only young teacher in the county, and one of only two female teachers. Although polite, not a single teacher had offered himself to her as a resource she could call on if she needed help completing her responsibilities. "I think some of it is probably to a certain extent, sticking it out long enough to become one of the group. If you are around a little while longer, then you kind of get accepted into the fold." She felt out of place, as if she did not fit in; a stranger in a foreign land. At the county agriculture

teacher meeting, she also felt as if the presenter was speaking in a secret language since she appeared to be the only one who did not understand his comments. The danger of the situation stemmed from its timing. Christy was just beginning her career in agricultural education and rather than a warm welcome, she got a chilly reception. Furthermore, the loss of mileage reimbursement due to her paperwork error provided another reason to reconsider her career choice.

Christy admitted feeling restless many times during her 16 years of teaching but her associations with other teachers helped her find reasons to stay.

> I got to a point where I felt I wasn't as happy as I could be if I had another job. There is a certain amount of, 'It is the same job even though you have different kids every year.' I questioned if I wanted to stay in teaching. These people came along at the right time for us to work together and that has probably kept me here.

Moving from a one-teacher agriculture program to a program with two teachers brought the potential for daily collaboration on local school and program-related issues; a void she experienced during her previous five years at the middle school. Although they were very different individuals, each shared a commitment to the success of their program and actively worked to make sure both voices were heard while managing its activities. Her leadership work in professional associations came from discussions among her group of teacher collaborators. Such dialogue also resulted in the opportunity to continue their learning in the distance master's program and engage in a tri-program grant project. She willingly and voluntarily took part even though each required additional commitments of her time. The fact these events presented her with the personal and professional motivation needed to make her work challenging, stimulating and rewarding was enough reason for her to maintain her commitment to agricultural education.

Mark

Textural Description

Mark's first stint at the university came immediately following his graduation from high school. While he confessed to not remembering much of the experience due to "youthful indiscretion," he did recall his work habits. "The first time I was up there it was always, 'Jeez, I didn't finish my report. Can you cut me a little slack? Can I give it to you later today? Can I get it to you tomorrow?' I was always looking for a way to beat the system." Upon graduation, he began a ten year career in banking. Mark decided toward the end of that time, he wanted to go back to school to become an agriculture teacher. He met with the professors in the department, as well as with his family, and at age 33 he enrolled in a second bachelor's program at the university. He approached the experience much differently, relying heavily on collaboration with others.

> The second time I was up there I was much more focused. …I put my stupid male ego aside, and allowed twenty, twenty-one year old kids to tutor me in college algebra. …I looked at studying as my job. I didn't want to cut any corners this time. I would always stay after class asking the professors questions. I looked at it [school] a lot differently than I did the first time.

While enrolled in the teacher education program, Mark had the opportunity to work with the many other students in his cohort. One of his earliest encounters involved a particularly challenging horticulture class. The course instructor presented a lengthy plant identification assignment and many students struggled to learn the 200 plus plants required. In talking with the other students in his major, he discovered another preservice teacher had taken the course one semester prior. The two discussed class expectations and she offered to share with him the photographs she took of each plant on the identification list. This gesture sparked in him and the other teachers, the importance of a collaborative culture. "We just kind of fed off of each other

and supported each other. We worked with each other. ‘How did you come up with this?’ or ‘How do you think we should do that? I think it all kind of developed from there.”

Upon completion of his teaching internship, Mark was hired to the school where he is currently employed. His first day on the job, the custodian told Mark he had a broken well on his land lab which needed repair. When Mark asked how he was supposed to take care of it, the custodian responded, “Put in a work order.” Once Mark learned how to complete the paperwork, he submitted the document and a few days later a district employee came to assess the situation. When Mark met him, he told Mark the area around the pump was too overgrown and he needed Mark to mow him an access road. Aware he had a tractor sitting on the land lab, Mark tried to start the machine but was unsuccessful. He went back to the custodian to report the dead tractor and was met with the same response, “Put in a work order.” This time, the work order went unanswered. When he checked on the order’s status, he was told to visit the bus garage because they were responsible for such repairs. Mark learned from his inquiry at the bus garage the work order would be on hold for two weeks after the start of school since they were backed up with servicing each of the county’s busses. Mark summarized the event by saying, “It was at that point I knew I needed to get help in a lot of areas in order to make things work in this environment.”

He was on the right path with this line of thinking as his tenure within the school community got off to a rocky start. Mark was the fifth teacher the program had seen in just three years. There were very few teaching and learning resources available and he faced a number of student management issues.

> It was rough! I was called to the principal’s office I don’t know how many times. I was accused of [things] and the mom was going to sue. Kids would run by my house shouting. Our teams never did well, or didn’t do as well as I thought we could have. I blamed it on these kinds of kids coming in.

Aware change was needed, he began asking other agriculture teachers what they did to get results. “I don’t know if it is just Florida or if it’s just guys in particular but they keep their cards close to their chests. They really don’t share anything.” A visit with a teacher in a nearby county who had been his college fraternity brother landed him a wealth of information.

> I called him and asked him for stuff. He would give me stuff. Then I got to know his teaching partner and he would share stuff with me. As they worked with a couple of teachers, I would call those other couple of teachers and they would say, ‘Sure, come on over.’ It just kind of mushroomed from there because I didn’t have anything.

Mark continued to follow each lead, creating a literal chain of collaboration. This chain led him to craft additional networks dealing with the FFA aspect of his professional responsibilities. Working with teachers in County 1, Mark was able to let his students train for the citrus CDE alongside the students from another school. “I took my team, and we set up a whole contest inside their auditorium.” Met with success in his quest for collaboration, he continued to pursue “like-minded teachers” who were willing to be open and share their expertise. While at a sub-district land judging CDE he spoke with Adam, a teacher in County 2, sharing some of the challenges and change goals he had in mind for his chapter’s performance in the contest. Adam then offered to share his contest training resources and extended an invitation to Mark and his students to practice with him and his team.

Taking his students to gather with Adam and his team, as well as the students and teachers from one school in County 3 and another from County 4, Mark was confused by the scene. He probed Adam, asking why he had offered to work with so many other teachers and students when they could beat his own on the day of competition. Mark recalled Adam’s response by saying, “Well, that’s easy. If we’re not teaching kids why are we doing what we’re doing?” As they continued their discussion, Adam shared the tenets of this educational philosophy.

> He said, ‘Every kid is engaged. Every kid is trying their best. There are no discipline problems. I have no distractions. I have them hanging on every word I say. Every one of

> them is striving to do their best and beat somebody else up here. Never in your teaching career will you have a classroom like you've got right now. …Mark, I don't care who you are. If you want to learn, I'll teach you because when we beat you I want to make sure we beat the best. And if you beat us it's because you've beaten the best.' With that, I began to seek out and socialize with other teachers at different conferences and events who were like-minded.

Through his connection with Adam, Mark met Rebecca. Rebecca was a similarly minded agriculture teacher employed at a school in County 5, and was considered to be an expert at the forestry CDE. Rebecca freely offered to share her expertise with Mark as the two brought their teams together for a practice at her school.

> When I asked Rebecca for some help she said, 'Just come by here and we'll work out with my team. I've got the whole contest set up in my shop.' Now when we [Mark and his students] go someplace, they recognize somebody. They've got somebody to talk to when they're there instead of just talking with the same kids [from their own school].

Collaboration was also established between Mark and Leanne from County 6. Leanne had enjoyed some success regarding the food science CDE. She also possessed a philosophy common to Mark's about sharing her expertise with other teachers. Based primarily on resource sharing, the two have offered one another whatever new CDE preparation materials each finds.

Within his own county, Mark crafted collaborations with two teachers in particular. With Shelia, the duo was able to prepare their vegetable CDE teams for competition. "Shelia will often call a joint practice between her kids and my kids." The day prior to the state vegetable CDE the two chapters traveled together, practicing in grocery stores and entomology laboratories along the way. Because of his status as an experienced agriculture teacher in the county, Shelia, and her teaching partner Carla, approached Mark to assist them in developing building plans for a brand new agriculture department facility in the county.

> I had a little bit of input on how the school was designed. I talked to them about needing a computer lab and a teacher planning area. It was suggested the bathrooms have some locker room space and that it have a shower for students that did need to shower after that unfortunate incident. Also, a hand wash station where five to six kids could wash their

> hands instead of one long line at one sink. It also included building a chapter officer room, resource room, and a trophy case display window which opens to the courtyard.

His relationship with this program did not end there. Since then, Mark and Carla have worked out a system where Carla makes feed runs on her commute to and from school. In return, Mark has provided a climate-controlled facility in which to store feed for both of their needs.

Mark recalled an experience where he shared information about beginning a booster club, with a good agriculture teacher friend. The other teacher was looking for ways to finance his chapter's activities yet was hesitant about starting a booster club. Having a strong booster club in place, Mark offered a clear description of the group's role and specific guidelines and parameters his friend needed to establish, in order for the group to operate successfully. After working with the other teacher, he started a booster club for his chapter and within three years, was raising over $25,000 to Mark's $10,000. "That's what collaboration can be. Because of that one teacher's nice conversation at our State FFA convention, they're now giving away scholarships for their kids going to college. They are also paying for students to go to CDEs that would not have otherwise had the opportunity."

Mark admitted to having what he considered to be "collaborative relationships" with the teacher educators in the department from which he graduated, even though they were different from the faces guiding him as a student. "I've tried to stay in touch with them so I can give [my students] the best possible advice. The only advice I give is the advice I get from Josh, Randy and Wade. When we're saying the same information, the kids respond to it a lot better." These discussions have helped a number of his students transition into the agricultural education major at the university. Most recently, Mark worked with Josh and two agriculture teachers from his home county to organize and facilitate a recruitment dinner for high school students interested in becoming secondary agriculture teachers.

Mark's experiences with teacher collaboration have resulted in his development as a teacher professional. His students have won state and national awards, he had demonstrated change in his classroom practices and he was even approached by administrators for promotion in his district. The successes often presented him with the dilemma of whether or not he should remain at his current school, transfer to another department in the county, or move into school administration.

> People recognize my leadership skills down here [in the agriculture department] and suggest they could be better utilized in management. I spent about fifteen, twenty minutes down at the front office. I come back here [to my classroom] and I am so happy to be back within my four walls and to hug my kids.

Rather than making the decision as to whether or not he would stay at the school on his own, Mark chose to seek the input of those with whom he worked closely.

> When they opened up Byer High, I was heavily recruited to go out there and open up that program. I really liked the principal that was going there and the idea of brand new everything so I called Adam. I said, 'Adam, what do you think about this?'… He had a good answer. So when they [county administration] opened up the new middle school and said, 'Hey, Mark! What do you think?' I said, 'Nah, I'm fine. 'Bout got this place the way I want it.'

Structural Description

Mark's perceptions of teacher collaboration were largely shaped by his core beliefs that no man is an island and that people are made stronger when they work together. These beliefs were not appreciated in his first career so he set out to find a place where they would be. Mark came to teaching by way of another field, much like a number of Florida's agriculture teachers. He had a solid career in the banking industry but after a number of position changes and dealing with feelings of dissatisfaction, Mark chose to complete a second bachelor's degree in agricultural education. His decision was unlike those generally made by other teachers from industry, as they often chose to complete the alternative certification process rather than a teacher education program. Opting to attend the university allowed Mark access to other pre-professionals with

whom he was able to network, learn, and grow. The experience made him feel integrated to the profession prior to taking his first teaching job. “It kind of started from there [collaboration with the cohort] and then developed from there. So, I’d call Laura and Mary, who’s not in teaching anymore. I’d ask them and they’d send me some stuff. It just kind of snowballed from there.”

His first experiences as a high school faculty member let Mark know how much he didn’t know about meeting the responsibilities associated with his role as an agriculture teacher. “They teach us this much,” [gesturing by placing his thumb and forefinger about an inch apart] “on that many subjects” [gesturing by holding his arms out]. The work order situation demonstrated his lack of knowledge about school protocol, something impossible for new teachers to know until they infiltrate a particular school system. The lack of instructional resources was also a surprise he could not have expected, but made very real upon gazing at empty file cabinets and textbooks that had been “trashed”. Another area making him aware of his shortcomings was the range of content he was responsible for teaching yet had limited knowledge. Frustrated by these barriers, Mark realized he needed help.

> There is no way you can do it all. …I realized that when I was trying to fix everything to try to teach, it was going to take a lot more than what I had. So I had to win friends and influence people to get something to work. It was a chore.

Guided by his core beliefs and the curiosity about how other schools achieved success, he made his teaching a priority and looked up those teachers with whom he formed lasting connections during his teacher education program. They were happy to help by sharing resources, contacts, and tips for success. “You just go and ask questions and for the most part people will help you because they are flattered [you asked].”

Thrilled with his initial successes in teacher collaboration, he looked to other areas of his teaching responsibility; namely the areas of FFA and SAE. Mark’s willingness to sit down with other teachers at professional activities was a fruitful beginning to expanding his efforts. He

chose to discuss professional goals, challenges, and issues rather than engage in small talk or, worse yet, withdraw from their company.

> The teachers with whom I collaborate are teachers that I gravitate toward. There are teachers that when our students are competing, they tell you what a great job they are doing. Then there are the ones that, 'How did you guys cover it?' 'How are you able to come up with this?' 'I had a parent do this,' or 'I had this teacher come in and help with that.' So the conversation starts in a big group to begin with but then they [the teachers] kind of break off into smaller groups of interest. That is where I think a lot of the like-mindedness of the teachers, or wanting to help each other and share information, develop. The ones that are so busy telling you what all they have done usually go off and brag to each other.

This choice was powerful to generating connections with teachers versed in areas of expertise beyond his own. "You can't know it all. You don't have to have all the answers." Mark's ability to perform more effectively in more areas expanded as he looked to Adam to enhance his knowledge base in soils and land, to Rebecca in forestry, to Leanne for food science, to Shelia for vegetables, and to others for citrus, the National Chapter Award application, and the many Proficiency award areas. The interaction not only benefited Mark's knowledge and socialization, it benefited the other teachers and every student they served. "My kids seem to like it [his collaboration] because it makes them better. They want to do well, make new friendships, establish the contacts, and be able to say, 'Hi,' to another advisor. They enjoy it."

From the moment he chose to engage in this new career path, Mark was able to humble himself and move beyond the profession's culture of skepticism and competition. He chose to adopt more open educational philosophies, like those shared by Adam, and model his personal beliefs for others rather than solely worry about how his students would place in a CDE. As a result, many teachers felt comfortable coming to him and letting him know how he could help them, especially those early in their careers.

> I think it is the younger ones that are more easily approachable and are more willing to share. So many of them have come through a program where they had an icon of a teacher, that taught for 20 or 30 years, that had every answer or gave the kids the impression they

> had every answer. They feel bad and don't have the confidence level they think they should have.

Some teachers have asked for his help and support in building a new agriculture program while still other teachers have approached him for his thoughts on deciding how to best improve existing programs. He has even taken it upon himself to collaborate with other teachers and teacher educators to work on the agriculture teacher supply and demand issues prevalent in Florida. His willingness to be open and take the initiative to begin collaborations has helped Mark carve a legendary reputation in the profession as a teacher collaborator.

Since his career in agricultural education followed a ten-year career in banking, Mark had a professional maturity well beyond that of other beginning teachers. His experiences with teacher collaboration helped him develop still further. As Mark moved closer to the midpoint of his teaching career, this maturity presented him with options for his future. The opportunities, while tempting, came as a result of the success he brought to the program and the depth of his professional development. Because of his great respect for Adam as a professional and friend, Mark did not hesitate to seek his input for helping him make a decision about his future in teaching. This bond between Mark and Adam was based on trust, forged with common values and shared history. A connection with such stability and meaning was instrumental in Mark's decision to remain as a contributing member of the agricultural education profession.

Composite Textural Description

All of the teachers in this study agreed teacher collaboration begins with taking the initiative to reach out to others. They also found collaborative efforts to be a powerful professional development tool, permitting teachers to focus on topics suiting their particular needs and interests. When considering whether or not collaboration had the potential for helping teachers gain more enjoyment from their work, they felt, "that's the fun part of the job." (Kevin).

The participants each identified some form of professional frustration as the tipping point to collaboration with other teachers. With Kevin, the desire came from the hopelessness he felt over trying to meet an impossible standard of the ideal teacher he had set for himself. For Christy, the difficulty of feeling out of place and thinking she had no one on whom she could call for help was enough to cause her to reach out. The issue of taking over a program with no instructional resources sent Mark canvassing the profession for support. “I guess that is where my desire for collaboration came from. It came out of frustration over not having anything. When I got there, I was the fifth teacher in three years and the program was a mess” (Mark).

Successful first experiences were also critical to the continued use of teacher collaboration. Every participant was part of the same teacher education program at the same university; Kevin and Christy simultaneously, and Mark a number of years later. As part of the program, preservice teachers completed their agricultural education coursework in a loose cohort structure. The arrangement offered the developing teachers an opportunity to work on professional activities with their future colleagues. This type of encouragement helped them complete higher quality work and identify individuals with whom they could collaborate once they finished the program. In all cases presented, friendship was the basis for many of these collaborations. “They were my good friends and still are” (Christy).

Each participant carried the idea of professional friends forward as they discussed their most important collaborations. The ties among them began on a purely professional level where they really just spent time getting acquainted. The key characteristic moving those relationships forward had to do with sharing a common set of goals or philosophies.

> I am glad the [Florida Agriculture Teacher Leadership] program came about because I met a really neat lady who became an excellent partner. I really didn’t know her before. We are really different but we are really alike. We tease each other and say we are the ‘Yin and the Yang’. We got through that distance master’s program by working together (Kevin).

> I have to give a lot of credit to Adam. The guy is phenomenal. And like I said, his whole philosophy is, 'if we're not educating kids, why are we doing what we're doing?' He is just fantastic. He is a good friend (Mark).

Also, the strong connections each had with their key collaborators were bigger than the tasks on which they were working. This enabled them to move the relationships forward from one project to the next.

The teachers expressed a common set of criteria for defining teacher collaboration. Each believed the concept to be based on a common set of goals to guide their work. "Collaboration is working together with a common goal, a common purpose and sharing ideas" (Christy). Resource sharing was commonly mentioned in their examples as it dealt with how to improve student opportunities for learning. "I think it involves sharing information; sharing study materials, sharing curriculum, sharing CDE helpful hints and guides" (Mark). Trust was at the foundation of every participant's description as it enabled them to share with others more openly. "It is so easy to lean over and say something to Todd where before [collaborating] I would have felt, 'Oh gosh, do I say this? Did I say it right?' I don't have to worry about that with him" (Kevin).

There was some commonality among the expectations each participant had about what could be achieved through teacher collaboration. First, the teachers believed their collaborative relationships with other teachers should be a source of professional development. Mark shared, "I think I am a better teacher." For Kevin, teacher collaboration gave him a new perspective on his work.

> The first few years [of my career] I felt like I was in survival mode. Collaboration came more in perhaps the fact other teachers didn't want to see me fail but wanted to see me succeed. After I moved to my current school I was able to collaborate more because I wasn't trying to survive anymore. It was a kind of branching out into a new territory. When I think of collaboration today, it may not be in a lesson plan or that type of format. I collaborate with my peers professionally. We call it 'professional development' and I think

> that is what it is. I think it still plays an important part in driving my professional development (Kevin).

For Christy, she just made the commitment to learn. “We decided we were going to learn more about something or do some form of something differently.” Using different methods of collaboration like curriculum development projects, leadership positions in professional associations, and advanced degree programs challenged each of them.

Secondly, each felt collaboration should be spontaneous. Their collaborative experiences, born of a structured program or protocol, created a lot of resentment. Christy shared,

> Ag teachers don’t necessarily like being told what to do in general. There have been times when I was like, ‘You have got to be kidding me.’ You know if it is mandatory, fine but high school teachers in general are kind of independent spirits. Don’t tell me what to do! In the beginning, I collaborated mostly because I needed to; it was required. Then it got to the point where I made my own associations and these collaborations were probably more useful and more productive. That is where I am right now.

Taking advantage of unstructured time, such as having a meal together or catching up between classes, meant there was ample opportunity to foster collaboration. “And it makes it easier. Let’s go have a bite to eat or come and visit. We love to sit down and just chit chat. I like that a lot better because it is more me now than before [when he was told to collaborate] (Kevin). Informal talk was also key to Mark’s experiences. “There is not a whole lot for the teachers to do while you sit around waiting for students to finish competing. So, you sit around and you start talking” (Mark). Christy added the use of email and cell phones provided her with more time to collaborate.

> Technology has really helped me in finding more time. You don’t have to go somewhere to meet someone to talk about things. Not everyone has always had a cell phone. I can call anyone, any time, anywhere. When I have a thought I can [gesture of opening a flip phone] and say, ‘Hello! Let’s talk about this!’ Email is so instantaneous. It has really helped in what we [the horticulture grant collaboration team] have done recently because I know in the beginning [of her career] if you needed something from someone, you needed to get together. You had to physically meet and you don’t have to do that now.

Third, the teachers expected teacher collaboration to be a remedy to the profession's competitive culture. Every participant commented on the reception they received when they entered the profession. Being the only young female teacher in a sea of older men, Christy felt extremely uncomfortable. "People weren't very open. They never said, 'Oh, just call us. We will help you'" (Christy).

> I didn't understand how these chapters kept winning all this stuff. They're not staying after school to practice so they got to be teaching that in the classroom. I started asking around. I don't know if it's Florida or if it's just guys in particular but they kept their cards close to their chest. They did not really share anything (Mark).

> They [other agriculture teachers] definitely would not share CDE material. Oh, no! It was almost to the point it was a joke, where if you hosted an event you locked things up. If you didn't, the teachers were like, 'What does he have over here?' It was because you were in competition. 'Why would we want to share with you?' (Kevin).

Each admitted they enjoyed the opportunity to compete but they also confessed winning was not their reason for competing. The teachers chose to put their own philosophies into practice rather than go along with the current competitive culture. Describing why he shares his expertise and resources with others, Mark said, "It's very competitive. If you want to be the best, you have to beat the best. Otherwise, what good is winning?"

Program viability was important to each of the three teachers interviewed. They felt a teacher's satisfaction with his or her job affected how the students, administration, and community perceived the program. Teacher collaboration, in the form of breeding success for more teachers in more diverse ways, was a critical strategy to achieving such a necessary outcome. Christy felt teacher collaboration had restorative powers, "I think it has been good for me. Getting to work with somebody revitalizes you." Kevin recalled his relationships with his two closest collaborators and how the interactions have formed his perspective about the future of the profession.

> The collaboration has increased my job satisfaction. I didn't have the chance to work with the other ag teachers at my first school. But buying in and talking to people, that makes it fun. Collaboration eases the job loneliness. I can pick up a phone and talk to a friend/ an ag teacher/ another comrade and get their ideas. If we are not going to collaborate professionally, then it is a dead profession.

Mark felt collaboration was also critical to a program's future within the community it serves.

> I would say the importance of collaborating professionally depends on how successful you want to be and how soon you want that to happen. If you want to be successful, grow, and get recognition and support in the education system that is stretched thin, you have got to get out and promote your program. If you stay back and try to be the end all of knowing everything you may be a great resource nobody knows about when they have decided to cut your program. You have to collaborate to hit some home runs to get the publicity and support from your administration. It shows this is a viable program that needs to stay in the community.

Composite Structural Description

The experiences of teachers in this study primarily revealed positive results related to teacher collaboration. They initially entered into these types of working relationships as early career teachers. Their individual needs related to developing their professional, content, or programmatic knowledge and skills had each participant working collaboratively with a formal district mentor. Although each mentor came from content areas outside of agriculture and career and technical education, each was able to provide "basic" pedagogical information and support. In return, participants offered the mentors the chance to "talk shop;" to think about and discuss issues related to teaching and learning. Although mandated by the state, these connections with knowledgeable individuals, married with their own "will to succeed," led to reasonable levels of success. Success manifested itself in the integration of "mathematics" and "science" into the agriculture courses.

The social aspects of teacher collaboration served as a form of motivation for the participants to continue the practice. The chance to talk with another teacher about their professional lives not only gave them something worthwhile to do while waiting for students to

complete their performance in CDEs, it gave them the chance to make friends of the strangers holding similar positions at other schools. Whether the opportunity presented itself at an official event, or was something they actively pursued on their own, the social component required their willingness to risk. To admit to another teacher they were not knowledgeable, confident, or competent in something was to risk their very reputations as effective agriculture teachers. Laying their shortcomings on the line, to their great surprise and comfort, resulted in greater camaraderie and trust in their relationships with others. “If you reach out, good things can happen” (Kevin).

Each of the participants expanded their views of education because of their experiences with teacher collaboration. Initially, the teachers were concerned with their content areas, trying to gain mastery at teaching a subject. Exposure to differing points of view and new philosophies presented each with a form of dissonance motivating them to reexamine their own structure of beliefs. This act of personal and professional inquiry led to powerful change.

> I told him [the culinary arts teacher], ‘I need to go because I need to work on the final exam.’ He said, ‘What do you mean, work on the exam? Why are you doing that? You are going to put down stuff that you think is important. If you set it up right and guide the students, they can make up their own test. You will be surprised at what they think is important and it cuts down on cheating. They will actually do better because they have ownership in it.’ It made so much sense. I probably haven’t made up a test in five years (Mark).

> I am seeing a need for being worried about more than your own skin, even though that is where it starts. We need to be worried about everyone because it will all affect us. We need to think about how things are going to affect our partner on campus or at another school. That partner might be an agriculture teacher, an English teacher, or even a career and technical education teacher. You have to remember agricultural education is one with them all (Kevin).

Each participant made reference to the contradiction which exists between competition and teacher collaboration. For each of them, teacher collaboration was about blending a variety of strengths, beliefs and expertise around a common goal. Rampant similitude of strengths, beliefs,

and expertise in the collaborative environment was believed to result in increased levels of competition. When the pool of talent was of a much broader base, innovative discussion could germinate.

> If you have people who do the same thing, then it can become a competition. It hasn't been that way for us [her group of collaborators]. Each of us is open to new ideas but what I am good at and what she is good at are very different things. You need to bring other perspectives in (Christy).

Textural-Structural Statement

Collaboration can deepen and broaden teachers' knowledge of teaching and learning. By pooling knowledge, skills, resources, philosophies, and ideas, teachers give themselves permission to be learners. They need not know everything about their content area or how to fulfill every aspect of their work. They are able to visit openly with others, accessing knowledge of which they had no prior understanding and co-constructing new knowledge to improve their performance. Thinking about how knowledge is generated expands the roles teachers traditionally play and confers upon them, the status of expert. No longer must teachers look beyond their ranks to advance their own understanding, they can band together to fill the need. Teachers can also realize these benefits by sharing resources as they address the existing deficiencies which prevent them from realizing the full potential of themselves, their students, and their programs.

Collaboration enhances a teacher's capacity for reflection. Teachers must reflect often and deeply about their professional experiences. They must consider how each has affected their development. Conducting regular assessments of one's strengths and needs allows a teacher to focus his or her collaborative efforts. This is often an advantage for everyone involved as the teacher can exercise choice in what they reach out toward. Additionally, collaborative reflection is used as teachers collectively consider the strengths and needs among other collaborators and

within the profession more broadly defined. Regardless of whether conducted privately, or with a group, reflection lends purpose to collaborative experiences.

Collaboration requires teachers to be bold, to take the initiative to be active participants in their professional lives. As opposed to being told what to do and how to act, collaboration provides a space for teachers to open their minds to new ideas and possibilities. This can be difficult to do in the earliest stages of the career. However, teachers become increasingly willing to reach out based on a need to know more or to have access to information and resources. Initiative can be fueled by setting a goal, a strong desire for change, encouragement from a trusted professional, and even frustration over professional challenges and needs.

Collaboration is more likely to occur when teachers have: (1) common expertise, (2) a common language by which to discuss their work, (3) common philosophies, (4) similar levels of experience, (5) common problems, (6) common goals and expectations, and (7) a diverse set of skills and knowledge. Similitude among collaborators helps them develop rapport more immediately than if few to no commonalities existed. It also creates a foundation from which productivity may be pursued. The differences in skills and knowledge create balance within the collaborative experience. Such differences challenge the status quo preventing it from dominating collective decision making.

Collaboration is fostered and supported through the time teachers spend together informally. Conversations held over a meal create a positive atmosphere for forming relationships with others. It also offers a space where teachers can open up about their beliefs and goals. Through casual conversation teachers discover those who are of like mind, harboring an interest in similar things. Often, these connections are nurtured through technology such as

phone calls and email. These informal tools overcome the constraints of time and space, obstacles commonly associated with collaboration.

Collaboration not only includes teachers from within agricultural education, it extends beyond the content area to include those with a vested interest in the education of young people. An incomplete list may include: administrators, school and district staff, other non-agriculture teachers, mentor teachers, community members, university teacher education faculty, and leaders from professional associations. These collaborators represent the perspectives of which agricultural education may have no understanding, or the resources it may lack. By opening the sphere of influence, new points of view can be considered as solutions are sought to a variety of professional problems. Additionally, richer information is developed as the interactions among different people working together uncover layers of knowledge and skill.

Collaborative relationships possess several common qualities. They (1) are mutually beneficial to the teachers involved, (2) involve professional friendships, (3) can be professionally challenging, (4) must respect member individuality, and (5) can ease some of the consequences of competitive cultures. Teachers participate in collaborative relationships for many reasons (ie. personal challenge, seeking to fill a personal need, desire to contribute) and often work with other teachers who are engaged for similar reasons. The outcomes are often successful. Many teachers fulfill all or some of their initial expectations for the work and tend to agree to pursue further collaborations. Teachers view their collaborators as professional friends. They value spending time together within a professional, as well as personal, capacity and form a kinship based on their deep respect for one another. The interaction with others is thought to present a new dimension of challenge for mid-career agriculture teachers, as it is not always comfortable to be plucked from the security of their classrooms and thrust into a more public arena.

Regardless of the type of collaborative structure, teachers who collaborate respect the individuality of members for the sake of forming relationships with greater stability, trust, and opportunity for growth.

Agriculture teachers can be very competitive. This side is most clearly seen in the competitions associated with the FFA and SAE components of their programs. Intimidating for some teachers, agricultural education's competitive culture risks resisting, and stunting, the potential for collaboration. Effective collaborative relationships have the power to change professional competition from being at the expense of students and teachers, into an enriching experience for both groups. As a few teachers come together and achieve some form of success, they begin looking to still other teachers who have a desire to take part in similar activities in the future. Given time and a willingness to let down their guards, a snowball effect can ensue as teachers champion for their profession and put student success ahead of their own.

Collaboration is more lasting and meaningful when it is spontaneous. The collaborations emerging from the bottom-up are perceived to be the most helpful since they originate from the needs of those directly involved. This approach helps teachers take more ownership of the work, since it evolves from personal interest. Teachers also tend to meet these experiences with less resentment than when they are structured. This is often because they are permitted an option about whether or not to interact, and to what extent.

Although spontaneous collaboration is most favored, the nature of teachers' work often requires them to engage in structural collaborative experiences. Structural collaboration is not always inadequate. Often, through these experiences, teachers have their first encounters with the phenomenon of teacher collaboration. Structural collaboration uses a top-down approach in the form of school-generated projects to give some teachers the push they need to reach out to other

teachers. Teachers' work in this environment can even be viewed as time well spent when the experience is appropriate for the needs of all parties involved. In mentoring relationships, interactions are sustained over time and are highly prescriptive to the needs and desires of the individuals present. Structural experiences of this caliber have the potential to achieve many of the same benefits as the spontaneous experiences.

Collaboration is professional development and improves the practice of teachers. Teacher collaboration is based on common goals to which teachers apply a special roster of talent. The phenomenon creates a common language, connecting teachers by existing knowledge and skills, as well as by their desire for those they wish to develop. The time teachers spend studying the act of teaching results in an accumulation of knowledge and skill reserves. These reserves make them more valuable contributors to collaborations because they have more to offer.

Collaboration occurs in all three components of the agricultural education program model. Opportunities abound for agriculture teachers to connect on issues related to classroom/ laboratory instruction, FFA and SAE. Teachers also find numerous opportunities for collaboration, with the capacity to advance the profession as a whole. The broad base of possibility allows a teacher to find the best use of collaboration for them and their needs. Once they do, teachers feel more engaged in their profession and express a greater sense of career satisfaction.

Collaboration is likely to occur throughout a teacher's career, beginning with early collaborative experiences. The university's teacher education program is generally the first opportunity preservice teachers have to interact with their peers with whom they will eventually enter the agricultural education profession. Getting to know one's peers during this time can forge lasting relationships. While the experiences can be heavily mandated due to programmatic

requirements, they do contain many opportunities for spontaneous interaction with peers, teacher educators, and cooperating teachers. These types of experiences may help teachers feel comfortable collaborating more often and much sooner than would have been expected otherwise.

Collaboration evolves with a teacher's level of experience. Early in the career, most collaboration involves working with a mentor. In these one-on-one contexts, the reciprocity between beginning teachers and mentors is thought to be low due to the beginning teacher's limited cache of resources related to practical teaching knowledge. However, this assumption could not be more false since beginning teachers have a more current theoretical and content knowledge base, having just completed their degrees. Together, the mentor and the beginning teacher pool their knowledge to advance their learning.

The longer a teacher spends in the career, the better able he or she is at demonstrating commitment to the profession. Establishing oneself as vested, opens new doors for collaboration. The successful outcome of these opportunities builds the confidence of teachers and encourages them to continue to engage in collaborative experiences. The continuum of development reveals the more experience teachers have with teacher collaboration, the less they will focus on their individual situations and the more they contribute to work with other teachers and the profession. A visual depiction of this continuum is found in Appendix E.

Collaboration helps teachers find an outlet for reward once they have moved beyond the survival mode associated with the earliest stages of the career. Teachers in later stages have developed the competence and confidence related to their responsibilities within the three components of the agricultural education program model. A career in teaching can be lengthy. Once a teacher has perfected his or her knowledge and techniques of classroom/ laboratory

instruction, FFA and SAE, they risk boredom; feeling as though they have lost the enthusiasm which initially drew them to the career. Teachers need to feel as though there is still much to learn and discover, and that they have the capacity to make a difference. These needs are often filled as teachers involve themselves in service opportunities for the profession. From filling leadership roles in professional associations, to organizing reform, collaboration can help teachers develop a broader professional awareness, allowing them to see their careers as more than what happens in their classrooms.

Collaboration reduces the isolation teachers often experience. Although surrounded by students, teachers are separated from their peers for a considerable part of the day. This leaves them unable to seek assistance with their pedagogical and content concerns during that time, often when they need it most. Collaboration is a valuable tool for socializing teachers. It removes the barrier of the classroom walls and draws teachers together in a variety of contexts. Whether through meetings, workshops, down time at CDEs for students, or even conferences, collaboration helps teachers get to know one another and advance their relationships beyond the acquaintance stage. Establishing connections with others provides teachers with the emotional support critical to helping them work through a variety of professional challenges.

Collaboration among teachers increases their career satisfaction. When teachers interact regularly on the basis of their common professional connections, they develop familiarity, understanding, and tolerance for one another and for their work. Collaborative activity increases the levels to which teachers are engaged in their career responsibilities and are committed to developing and maintaining viable agriculture programs. Furthermore, collaboration impacts the degree to which teachers are invested in the overall profession. These elements contribute to a teacher culture which is supportive of teacher growth and development. Through collaboration, a

teacher may even receive help in making decisions about their careers; including changes to their pedagogical practice and whether or not they will persist in the career.

Two research questions were pursued in this study. The first inquired as to experienced secondary agriculture teachers' perceptions of teacher collaboration. At its essence, the phenomenon of teacher collaboration involves connection with a purpose. Teacher collaborators have within them the desire to make education better for teachers and students alike. Collaboration lets teachers band together, not just to talk about solutions, but to make things happen. Much more than time for teachers to get to know one another, teacher collaboration is a professional development tool, providing teachers with real opportunities to feel more capable and rewarded. Collaboration requires investment and hard work. It motivates teachers to dig deep within themselves; to question, to challenge, to risk, to share, and to be diligent in such pursuits.

The second research question asked how experienced secondary agriculture teachers experienced teacher collaboration. At some point in their careers, teachers come to a place where they want more than they have done, or are able to do, alone. Collaboration with other teachers affords them the opportunity they need to achieve a higher level of performance for themselves, their students, and their profession. Teacher collaboration occurs through both spontaneous and structural avenues but a teacher's preservice teacher education program is often his or her first encounter with the phenomenon. Teachers who actively collaborate treasure opportunities for informal interaction. Such moments not only allow prospective collaborators to find one another, they help form friendships resulting in lasting partnerships. Teachers' experiences with collaboration are key contributors to their career development, satisfaction, and commitment.

Table 4-1. Participant Descriptions.

Name	Years Teaching	Certification	Teachers in Program	Statewide Professional Leadership	County Description	Personal History
Kevin	16	Traditional	2	Active	Semi- structured with supportive CTE supervisor Northern part of the state 7 agriculture teachers in county	Former secondary agriculture student Dad & cousin are agriculture teachers High school agriculture teacher in different county before present appointment
Christy	16	Traditional	2	Active	Traditional structure with strong county agriscience supervisor Central part of the state 41 agriculture teachers in county	Former secondary agriculture student Only young female teacher in county upon hire Middle school teacher before current appointment – 5 years
Mark	13	Traditional	1	Active	Semi-structured with supportive CTE supervisor Central part of the state 11 agriculture teachers in county	Former secondary agriculture student Career in banking before current appointment – 10 years Has taught at same school the entire time

CHAPTER 5
DISCUSSION

Introduction

The current study posed two research questions: “How do experienced secondary agriculture teachers perceive teacher collaboration?” and “How do experienced secondary agriculture teachers experience teacher collaboration?” The participants in this study were secondary agriculture teachers with a reputation for collaborating with other teachers. Even though all of the teachers were traditionally-certified and fell within the expert and distinguished phases of the Steffy et al. (2000) Life Cycle of a Career Teacher model, they varied in their personal experiences with teacher collaboration. Using the research questions as a lens through which to view the data, it is evident the teacher participants credited teacher collaboration with having a positive impact on the quality and longevity of their careers. This chapter will discuss the key findings from the study and place them within the existing literature on teacher collaboration. Implications for research and practice will also be presented.

Key Findings

The researcher discovered the participants’ comments related to the phenomenon, attended to each aspect of the study’s conceptual model (Figure 2-1), including: teacher learning, teacher collaboration, teacher professional development, teacher career satisfaction, and teacher retention. The teachers seemed to emphasize the different pieces of the model in similar ways with varying examples from their experiences. Table 5-1 features the key points which emerged from the data and their connections to the literature. Each teacher in the study placed a high value on teacher collaboration, viewing the phenomenon as having a positive impact on their development and the development of those around them.

Teacher Learning

Each participant focused on teacher learning when describing teacher collaboration. Throughout their interviews, the participants revealed their collaborations with other teachers helped them learn more about their roles as teachers, and as teachers of agriculture. This finding corresponds with those by Johnson (2003). The time spent sitting and talking with other professionals about their work was valuable for these teachers. Similar to Carroll's (2005) findings with elementary mentor teachers, "interactive talk" afforded these agriculture teachers the chance to extend the career-related knowledge they gained from their teacher education programs. Working with others brought them access to knowledge, skills, ideas, and resources which had previously been beyond their reach; just as it did for teachers in the Gehrke and McCoy study (2007a). The benefits of collaboration related to teacher learning helped participants feel more confident in fulfilling specific career-related responsibilities.

Reflection emerged as an essential element of the experiences this teacher group had with teacher collaboration, a consideration at the heart of Hargreaves' (1994) work on the topic. An awareness of their personal needs, and knowing what they could offer others, were powerful motivators for helping them select the collaborative opportunities in which to engage. Reflection also helped them become more open to how they perceived the concept of education (Rodgers, 2002). Each mentioned their collaborations related to more than just their particular classrooms and subject matter. This line of thinking was demonstrated by their decisions to pursue advanced degrees and positions of leadership within their professional association. It was clear this group of teachers was seeking to impact the way those outside of agricultural education perceived the discipline. Collaboration opened the eyes of these teachers, to let them see the critical nature of their involvement in the agricultural education profession. They realized they were important

pieces of something larger and that their active involvement was critical to the overall health of the profession.

Teacher Collaboration

Each collaborative experience recalled by the teachers was a direct result of their willingness to take a risk. They were dissatisfied with their professional situations at various points in time, as well as their commitment to themselves, their students, and their profession. This compelled them to seek change rather than wait for it to happen. This level of investment caused the teachers to recognize and seek opportunities for collaboration more than they would have otherwise.

These findings support the work of Johnson and Birkeland (2003) who found those teachers who were willing to persist in the profession reached out and seize those opportunities to form relationships and work with their peers. Finding opportunities for grant work, creating teacher and student CDE training workshops, and even volunteering to steer legislative initiatives for career and technical education came from the teachers themselves rather than from the outside. These types of spontaneous events seemed to have the greatest and most lasting impact on the development of these teachers. It is important to note each of these grander collaborations was born out of collaborative relationships fostered by a focus on teaching and learning, and improving the daily performance of teachers.

The teachers in this study encountered collaboration as a purely classroom-based experience when they worked with their formal, district-mandated mentors. However, the teachers soon began to realize their mentors' limited ability to assist with the responsibilities specific to their positions as agriculture teachers; a finding supported by Greiman et al., (2005). They knew they needed to connect with teachers in similar positions at other schools, who possessed common goals and philosophies but had a diverse knowledge and skill base (Sumison

& Patterson, 2004). By expanding their circle of influence, their level of satisfaction with their performance as advisors to FFA and SAE increased, as did that of their students. The shift in their focus about when and where teacher collaboration was appropriate required the teachers to look beyond the competitive culture of agricultural education. The FFA and SAE environments could, at times, feel as though teachers were pitted against one another. The participants were able to move beyond this mindset by maintaining a common commitment to student learning. The outcomes of these actions often resulted in a win-win situation for everyone involved (Seifert & Mandzuk, 2006).

Teachers in the present study noted rich experiences with teacher collaboration. They appreciated the contributions teacher collaboration made to their professional lives. In fact, each highlighted the additional layers of educational professionals with whom they formed connections, including: school and county administrators, school and county support staff, community members, and university faculty (Johnson, 2003). The phenomenon allowed them to form lasting friendships and important bonds because of their shared work (Hargreaves, 2001). With every successful experience, these teachers crafted shared goals and history which led to more opportunities for collaboration. They also felt their informal interactions with other teachers were prime opportunities to further develop their connections (Hartnell-Young, 2006; Park et al., 2007). The time they spent waiting for their students to compete in CDEs was perfect for having meaningful discussion. Overall, their willingness to be open and public about their experiences serves as an example to others in the profession about the importance of teacher collaboration to agricultural education.

Based on the present participant group's experiences with teacher collaboration, each felt they yielded the greatest benefit from spontaneous collaborations, a finding also noted by

Williams et al., (2001). While based on common goals, the spontaneous collaboration among the agriculture teacher group respected their autonomy by allowing them more choice surrounding the logistics of their work. They did confess structured collaboration provided some benefits to their work, such as giving them the push they needed to interact with others, but the rigidity of those experiences felt like a drain on their time and energy. The freedom they enjoyed with spontaneous collaboration allowed them to set their own agendas, communicate through a variety of mediums, and work together when it was most convenient for all parties involved (Hargreaves, 1994; Selwyn, 2000). These elements often made their spontaneous collaborations more professionally revitalizing and productive.

Teacher Professional Development

The teachers viewed teacher collaboration as consistent and persistent means of professional development throughout their careers, beginning with their earliest encounters as preservice teachers when they fostered their initial connections with peers (Seifert & Mandzuk, 2006) Teacher maturation played a role in the collaborative experiences of these teachers, much like they did in the findings generated by the Park et al. (2007) study. The moment they entered the career, the teachers had a solid base of *knowledge for practice* (Cochran-Smith & Lytle, 1999). Their understandings of agricultural content and pedagogy were predominantly shaped by the understandings gained from their teacher education program. However, the opportunities for increasing their *knowledge in practice* and *knowledge of practice* were extremely limited in that environment (Cochran-Smith & Lytle, 1999).

When met with their first opportunities for collaboration as preservice and beginning teachers (Johnson & Birkeland, 2003), the teachers could not easily see past the personal needs they associated with their local programs (Hargreaves, 2000). Each had a limited focus during this time due to a lack of professional experience. As the years passed, they developed new

knowledge and skills related to their experiences in an agriculture teaching context (Carroll, 2005). The time spent learning, practicing, and witnessing the results of their efforts not only filled their toolboxes with knowledge and skills, it built their confidence to share with others (Butler et al., 2004). Each felt confident sharing their expertise as it related to the three major components of their agriculture programs (Boone & Boone, 2007; Greiman et al., 2005; Warnick et al., 2004).

The fact collaboration could: (1) occur at any point in their careers, (2) bring new challenges and opportunities for learning, and (3) permit them to have some say over the logistics of the work were features making it an attractive professional development tool. These findings were similar to those reached by Hargreaves (2000) who determined collaboration must be aligned with the needs and goals of teachers if it is to help them develop. In many cases, collaborating with other teachers caused the participants from this study to first think about a practice, then question its potential for leading to the results they sought, and finally make a decision which often resulted in a changed belief or behavior. The flexibility of the work to grow and change with each of the teachers as a support for life-long learning was also mentioned by Butler et al. (2004). The findings of this study uphold those within the literature on teacher professional development as these teachers demonstrated the greater the investment, the richer their experience, the better the outcome, and the more lasting the change.

Teacher Career Satisfaction

In the first few years of their careers, the teachers mentioned they were trying to learn everything. Their collaborations often focused on trying to develop lesson plans, managing the FFA and SAEs, and increasing their knowledge of the content area (Greiman et al., 2005; Hanson & Moir, 2008). After some time, the teachers could complete their career-related responsibilities with little effort. It was at this point, the teachers went in search of new

challenges, often beyond their individual programs. Each one accepted leadership positions with the state agriculture teacher's association, as well as other opportunities for service to the profession. While initially a way to seek fresh challenges, these new frontiers helped the teachers continue to enjoy the career and be fulfilled by it. It also expanded their awareness of the profession, a benefit mentioned by Carroll (2005) as well.

Participants recognized teacher collaboration as having a positive impact on their career satisfaction (Johnson & Birkeland, 2003). Many factors contribute to a teacher's low career satisfaction, among them, teacher isolation (Greiman et al., 2005; Smith & Ingersoll, 2004). Each teacher expressed they were less than satisfied with their careers prior to collaborating with others. They confessed they often entertained the idea of leaving teaching when they worked independently for long stretches, and were confident they would have continued those thoughts had they remained isolated.

Similar to the experiences of the *leavers* described in the work of Johnson and Birkeland (2003), teachers in this study had rocky starts when they accepted their first teaching positions. They admitted having experienced feelings of overwhelming frustration. However, their determination, commitment to their career choice, and opportunities to collaborate with other teachers in a variety of ways helped see them through those difficult periods (Gehrke & McCoy, 2007a). A variety of teacher collaboration is used in education, for the purposes of teacher socialization and teacher learning (Hargreaves 1994; Puchner & Taylor, 2006; Sumison & Patterson, 2004; Williams et al., 2001). In the present study, collaboration strengthened the teachers' resolve to grow and improve.

Teacher Retention

Johnson and Birkeland's (2003) study found teachers who left within the first few years on the job did so because of the professional frustration they felt. For one teacher in particular, the

sheer monotony of the job presented her with feelings of hopelessness and doubts about her professional commitment. The lack of challenge teaching presented after a while was enough to cause her to wonder if she was going to leave the classroom or become the type of teacher who stayed yet was completely disengaged. Instead, she chose the challenge of working with other teachers. As a result, she gave those collaborative activities credit for keeping her in teaching and moving her career onward and upward (Cochran-Smith, 2004).

Each teacher in the study believed in the importance of contributing to the profession beyond classroom teaching. In some cases, the teachers even believed in contributing beyond the agricultural education community. Although this belief was prompted by different reasons, each felt they had something to offer in a way that would satisfy the professional needs of other teachers and themselves. The choices they made also demonstrated their commitment to the future of the profession, a commitment often resulting in increased program visibility.

Implications for Research

As a result of this study, several directions for future research on teacher collaboration surface. The present study contributed agricultural education's voice to the literature related to the phenomenon. Despite this accomplishment, the voices only represented three high school agriculture teachers in Florida; each a product of the same university teacher education program. To confirm the study's credibility, this study should be replicated in a similar context. Phenomenological methodology suggests including "up to ten people" (Creswell, 1998, p. 65). In order to increase the breadth of the study, future research should consider similar studies using sample sizes larger than three. Drawing on teachers at middle schools, teachers at different points in their careers, and even those teachers in other states would lend still greater diversity to the literature.

Agricultural education comprises one sector within career and technical education. Because the two share legislative, funding, and philosophical ties, future research on teacher collaboration should include the voices of these related professionals. Much like agriculture teachers, the experiences of other CTE teachers have been less evident in the literature. By highlighting their voices, the professional needs of CTE teachers may be better addressed.

Phenomenology is a return "back to the things themselves" (Crotty, 2003, p. 78). Using another research methodology would examine teacher collaboration from perspectives beyond that foundation. A focus group study comprised of teachers who collaborate among themselves may prove important for identifying the processes and outcomes of their interactions. Looking into the inner workings of the group could also reveal more about the relationship dynamics which transpire in collaborative environments. Such insight could aid agricultural education professional development providers in creating strategies to foster the use of teacher collaboration on a broader level.

In this study, reflection was described as a catalyst leading to the participants' experiences with teacher collaboration. An investigation of the ways teachers reflect and come to the conclusions they need help from one another, may prove to be an important next step. Further, it may be interesting to describe how they move from everyday conversation to more sophisticated levels of collaboration like working on projects or even engaging in problem solving. An investigation into the success of various tools teachers have used to collaborate with others may shed more light on the phenomenon. Lesson study, teacher study groups, literature circles, interactive talk, and online resources like wikis, are just a few of the tools bringing teachers together.

A deeper examination of the teachers' first collaborative experiences would also be a valuable study for teacher educators and those who prepare and facilitate teacher induction programs. In the present study, each participant had positive early experiences with teacher collaboration. This gave the teachers the confidence to seek additional collaborative opportunities. Learning more about the circumstances surrounding initial experiences with collaboration may assist support providers in issuing opportunities for teachers to work with others much sooner. It may also help them discover how to create the ideal collaborative environment. Findings may also uncover ways to help teachers enjoy greater satisfaction and successful outcomes related to teacher collaboration.

Teacher retention is an issue of national concern (Cochran-Smith, 2004; Ingersoll, 2001b; Kantrovich, 2007; Osborne, n.d.). With teachers leaving so soon after their arrival, they find it difficult to gain the skills necessary for success. According to Worthy (2005),

> Teachers who stay in teaching improve dramatically during their first few years. However, largely because of low job satisfaction, too many leave before this point. Thus, 'it is critical to retain new teachers for at least five or six years so they can reach their full potential' (p. 381).

The current study focused on the perceptions and experiences current, mid-career teachers had with teacher collaboration. A future study should examine the collaborative practice of those who have left the profession to expand what is known about the phenomenon. Finding out whether or not this group utilized teacher collaboration in their careers would provide valuable insight into the issue of teacher career satisfaction and retention.

Looking into the collaborative activities of beginning teachers would uncover more highly specific accounts of how early career professionals were exposed to collaboration. Data from this type of study could also generate how beginning teachers feel about using collaboration to establish themselves in the profession. Because of their place in the career cycle (Steffy et al.,

2000), teachers within this group would provide richer information on the topic as it relates to this point in the teaching career. As hard as they tried, it was difficult for the current study participants to recall the fine details of these early experiences due to the time gap. It is much easier for teachers in the apprentice phase (Steffy et al., 2000) to recall memories of their preservice teacher education programs since, in most cases, they will have only been out a few years.

Another study of interest could use survey design to investigate teacher collaboration on a grander scale. Agriculture teachers from across the state and even the nation could comprise the sample population. Inquiring as to the type, frequency, and outcomes related to their collaborations with other teachers would produce more generalizable data. Such a quantitative examination of teacher collaboration may prove useful to those planning and facilitating the professional development of agriculture teachers.

Implications for Practice

Hargreaves (1994) stated,

> Physically, teachers are often alone in their own classrooms, with no other adults for company. Psychologically, they never are. What they do there in terms of classroom styles and strategies is powerfully affected by the outlooks and orientations of the colleagues with whom they work now and have worked in the past. In this respect, teacher cultures, the relationships between teachers and their colleagues, are among the most educationally significant aspects of teachers' lives and work. They provide a vital context for teacher development and for the ways that teachers teach. What goes on inside the teacher's classroom cannot be divorced from the relations that are forged outside it (p. 165).

The teachers in the present study demonstrated the vital connection between collaboration and career satisfaction leading to retention. The current findings and prior research reveal the teacher isolation which plagues the profession may be eased through teacher collaboration (Boone & Boone, 2007; Greiman et al. 2005; Hargreaves, 2001; Williams et al., 2001). Considering its use as a professional development tool, teacher collaboration has the potential to positively impact a

teacher throughout his or her career (Gaurino, Santibanez, & Daley, 2006; Johnson & Birkeland, 2003). The findings also suggest this study has implications for addressing the factors contributing to the problem of teacher attrition facing agricultural education.

Many references were made by the participants about the role reflection played in their decisions to collaborate. This practice of inquiry led each to examine their individual circumstances against their professional goals and the new information they encountered. Beyond private reflection, they often engaged in dialogue with another teacher they trusted, discussing opportunities to address the focus of their inquiry. These dialogues generally led to collaboration on projects, formal professional development programs and plans for improving performance of career-related responsibilities.

Teacher educators must work hard to create an environment in their teacher education programs which fosters teacher reflection. Espoused platforms are integral to gaining a sense of what each pre-professional believes about teaching and learning. They must be developed early in their programs. These documents serve as the basis for individual development, as well as the development of a collaborative teaching culture. Teacher educators must call their students' attention to these statements often, encouraging them to consider how their new learning either supports their beliefs or refutes them. With time, these private inquiries may be moved into a small-group or whole-class discussion. This process allows teacher educators to foster trust among preservice teachers as they learn to actively question together. This advances their reflective practice and the potential for socially constructed knowledge about agricultural education, teaching, and learning.

State agricultural education staff and leaders of professional associations can continue to support the development of a reflective environment by inviting professional dialogue on the

topic of teacher collaboration. Since these groups have the potential to play an important role in planning statewide agriculture teacher professional development, they are in a prime position to shape program delivery. They can request every presenter show a connection between his or her presentation and the practice of teacher collaboration. By integrating discussion on the topic during their workshops, agriculture teachers will spend considerably more time thinking about the act of collaboration and getting used to its presence in the profession. The teachers should also be led through exercises to encourage teachers to consider how teacher collaboration can work for them and their colleagues. Guided activities like needs assessments and reflective prompts, followed by down time to let teachers visit about their responses, may create the chance for teachers to discover opportunities for meaningful collaboration. The use of such recommendations may also help to ease the profession's competitive culture so widespread collaboration might thrive.

The teachers expressed positive feelings regarding their relationships with their preservice peers during their teacher education programs. Once hired to their first jobs, they often turned to these individuals for help in finding solutions to their early challenges. It is important for teacher educators to find ways for preservice teachers to develop a willingness to help others improve. Preservice teachers need opportunities to learn and practice the skills and attitudes important to successful collaboration.

The incorporation of collaborative elements in class could include: paired class discussions, cooperative learning projects, online course components for reflecting on class meetings, and webcams to encourage discussion continues as preservice teachers become separated by their student teaching experiences. Professional development activities offered through student organizations like Collegiate FFA (CFFA), can afford these individuals many

opportunities for collaboration. One such possibility is working together to develop workshops for delivery at the state FFA convention. Each of these practical possibilities could support preservice teachers as they begin to develop the habits of mind to look to their fellow teachers as an extension of their base of knowledge and expertise. While viewed as more structural due to their use within a course, their value is as a tool to model activities which can be used more spontaneously in the future.

Two of the teachers in the present study discussed experiences they had collaborating with other teachers during their internships. These opportunities presented themselves because their cooperating teachers took the time to introduce them to others. Much more than a mere introduction, they encouraged the participants to form ties with other teachers resulting in cross-curricular teaching opportunities. Teacher educators must help cooperating teachers understand the importance of these experiences to the development of preservice teachers. Teacher education can do this by adding the activity to the list of experiences preservice teachers should have during their internships. The small gesture sends a strong message to cooperating teachers and preservice teachers alike, that it is important for agriculture teachers to reach out to other teachers in the school community. Taking it one step further, teacher educators and cooperating teachers should help their preservice teachers identify objectives from their lesson plans and connect them with opportunities to collaborate with specific teachers in the school. Directly supporting this area of development may make preservice teachers more inclined to reach out to teachers in other disciplines throughout their internships, as well as throughout their careers.

Seeking cross-curricular opportunities helps agriculture teachers think of their agriculture students as students they share with the other teachers in the school. It also helps them consider the important role they can play in the development of all students and teachers in the school

community. Agriculture teachers must share their students' work with teachers from other content areas. For example, publicizing any work a student of agriculture produces which integrates concepts from science, English, mathematics, social science, and even art into agriculture, can begin to build bridges which may surpass the divide between the academic campus and the CTE campus.

Even with the best of intentions, collaborations among teachers can fail (Bondy & Brownell, 1997). Although minimal, the participants expressed a few situations where their collaborations with other teachers were not as rich as had been anticipated. Such outcomes can be traced to poor or even absent collaboration skills. Consequently, state staff, teacher education, and FAAE must work together to provide instruction and support to teach agriculture teachers the skills needed to collaborate effectively. Important skills include: "listening carefully, using clear language, understanding and respecting other people's perspectives, and finding common ground (Bondy & Brownell, 1997, p. 112). Such skills sessions could be part of the inservice education programming or presented in an online format. The information could be presented via an e-newsletter or even placed on a website in a modular form for teachers to work through. This move helps practicing teachers develop their awareness and use of these soft skills in preparation for the work they will do as cooperating teachers.

Opportunities for promotion do not often exist within the teaching ranks of education. This realization can bring great disappointment and dissatisfaction as teachers wonder what is left to challenge them. Often, there are opportunities for personal and professional development, teachers merely need to be made aware of what is out there. To improve teacher communication, state leaders must develop the infrastructure to make a multitude of resources available to teachers.

According to the state agriculture teacher directory, virtually every teacher in the state has an active school email account. The development and distribution of e-newsletters through the state listserv may provide one way to share information with teachers. The creation of a Florida agricultural education website would be another way to spread word about professional opportunities. Since one is not currently found online, this new site should be a home base with a variety of pertinent information to help teachers feel connected, no matter where they may be located. The addition of a discussion board may prove useful for teachers to discuss state-wide issues, and even post their own questions for comment by others. A page on the website, or a regular column in the e-newsletter, could share teachers' stories of collaboration with others. Publication of their success might inspire others to begin making connections and collaborating (Worthy, 2005). Including an online version of the state agriculture teachers pictorial directory would provide a copy of the latest contact information to increase familiarity among teachers and ensure new teachers are promptly welcomed. Such resources would be especially helpful for those counties without an appointed agriscience supervisor facilitating county agricultural education activities.

As revealed by one member of the study, some teachers may know what opportunities await them but are unwilling to take the risk and volunteer. To encourage teachers to develop a broader educational focus, they must be invited to participate in the activities of their state agricultural teachers association. The Florida Association for Agricultural Education (FAAE) provides leadership opportunities through service to the organization as an officer and area representative. Because of its association with the entire profession, the organization should take on a greater share of the planning and facilitation of the state's professional development programming. FAAE, in cooperation with the Florida Farm Bureau and the state Department of

Education, also sponsors the Florida Agriculture Teacher Leadership Program where teachers are selected to travel the state, meeting industry leaders and learning more about the Florida agriculture industry.

FAAE officers must make it their personal mission to visit with the state's agriculture teachers and encourage them to be active, dues paying members of the organization. They must also encourage talented teachers to consider running for offices once they have completed their terms. Their leadership in this capacity has the potential to change the current state culture from one of competition and isolation; to one where teachers across the state value professional events and have an unspoken expectation that everyone will take part in them. Helping teachers find opportunities to be active in the National Association for Agricultural Education (NAAE) and the Association for CTE will further state agriculture teachers' capacity for expanding their thinking beyond their state.

Loneliness is often dangerous to the commitment and persistence of early career teachers (Johnson & Birkeland, 2003). To launch a united front against this problem, state staff, teacher education and the FAAE must ensure opportunities are available for teachers to socialize. There must be time built into formal event schedules for professional discussion and interaction. Informal opportunities for teachers to talk can encourage the development of connections leading to spontaneous collaboration in the future. Simply providing snacks and a lounge space for teachers while their students compete in various events may encourage them to gather and visit on professional matters.

Conclusion

Agricultural education finds itself locked in the national teacher shortage trend (Kantrovich, 2007). When examining the reasons teachers exit the profession before retirement, feelings of isolation leading to career dissatisfaction, are big contributors. To meet the growing

needs of qualified agriculture teachers, retention of current teachers is vital. The literature states teachers benefit from interaction with other teachers. As a result, teacher collaboration holds promise as a way to help alleviate high teacher turnover.

The evidence in this study demonstrates the relationship teacher collaboration enjoys with three areas contributing to teacher retention, including: teacher knowledge, teacher professional development, and teacher career satisfaction. The result is the essence of teacher collaboration. The characteristics are:

- Collaboration deepens/ broadens a teacher's knowledge.
- Collaboration is a product of reflection.
- Collaboration stems from taking the initiative.
- Collaboration is more likely to occur when teachers have: common expertise, language, philosophies, age/ gender/ years of teaching experience, problems, expectations/ goals and diverse skills & knowledge.
- Collaboration is fostered and supported through informal experiences.
- Collaboration goes beyond work with other agriculture teachers.
- Collaborative relationships: are mutually beneficial, involve professional friendships, can be professionally challenging, respect individuality of members, can ease competitive cultures.
- Collaboration is more lasting, meaningful, useful, and welcome when it is spontaneous.
- Collaboration is professional development.
- Collaboration has the potential for use in all areas of the agricultural education model.
- Collaboration is likely when experiences begin early.
- Collaboration evolves with a teacher's experience.
- Collaboration is a way to find additional reward once the teacher is beyond survival mode. Generally includes an increased professional awareness.
- Collaboration provides emotional support and decreases isolation as a socialization tool.

- Collaboration increases teacher career satisfaction and may contribute to program viability and teacher retention.

This study provides evidence that teacher collaboration is a useful tool for enhancing the professional experiences of secondary agriculture teachers. This seemed to be accomplished through early and steady exposure to the phenomenon. Teachers began their first collaborations during their preservice teacher education programs. As the teachers developed, so did the collaborative experiences. They consistently met the teachers exactly where they were with regard to need and interest. Teacher collaboration continued steadily throughout the teachers' careers, presenting them with new challenges to impact the overall health and vitality of the profession. In the case of these teachers, their connection to the larger aspects of their work increased their long-term enjoyment of, and persistence in, the agriculture teaching career.

Table 5-1. Teacher Collaboration Research Findings.

Conceptual Model Component	Finding	Data	Literature Connection
Teacher Learning	Collaboration deepens/ broadens a teacher's knowledge of teaching and learning through the act of pooling knowledge, skills, resources, philosophies, ideas...	K- He'll find something, either a lesson plan or a topic, or a piece of equipment, 'What do you think about this Kevin?' Or, I'll find one and say, 'You know let's try this, or have you tried that? Better look at this Mr. Peterson.' He is extremely open to new ideas, teaching methods, and technology. C- I know when we started collaborating, really good stuff came at a time when I had been teaching 10 years. M- [There are teachers] that, 'How did you guys cover it?' 'How are you able to come up with this?' 'I had a parent do this,' or 'I had this teacher come in and help with that.'	Carroll, 2005; Gehrke & McCoy, 2007a; Goddard et al., 2007; Hanson & Moir, 2008; Hargreaves, 1994; 2000; Johnson, 2003
Teacher Learning	Collaboration is a product of reflecting on one's professional state.	K- I wasn't fast. I take my time. I am pretty methodical because reflection was what the National Board was all about, reflecting on your teaching. How you can do it better. Reflect, reflect, reflect. C- For anything to be useful, it has to be personal. It has to be something you need. … [Ask yourself] 'Is there someone I can work with that will make this better?' M- There is no way you can do it all. …I realized that when I was trying to fix everything to try to teach, it was going to take a lot more than what I had. So I had to win friends and influence people to get something to work.	Hargreaves, 1994; Rodgers, 2002

Table 5-1. Continued

Conceptual Model Component	Finding	Data	Literature Connection
Teacher Collaboration	Collaboration stems from taking the initiative to reach out to others; often based on a need to know, and have access to, more.	K- He [Mr. Peterson] taught me you have got to reach out and ask, to not be afraid to say something. C- We kind of felt out of the loop sometimes... We worked together. M- I guess that is where my desire for collaboration came from. It was out of frustration over not having anything.	Johnson & Birkeland, 2003; Little, 1990
Teacher Collaboration	Collaboration is more likely to occur when teachers have: • Common expertise • Common language • Common philosophies • Common age/ gender/ years of teaching experience • Common problems • Common expectations/ goals • Diverse skills & knowledge	K- I am glad the [Florida Agriculture Teacher Leadership] program came about because I met a really neat lady who became an excellent partner. I really didn't know her before. We are really different but we are really alike. We tease each other and say we are the 'Yin and the Yang'. C- If you have people who do the same thing, then it can be a competition. It hasn't been that way for us [her group of collaborators]. Each of us is open to new ideas but what I am good at and what she is good at are very different things. You need to bring other perspectives in. M- I continue to look for like-minded teachers that buy into this philosophy that you can't be the end-all and know-all and we need help. 'If we're not educating kids, why are we doing what we're doing?' … 'To be the best you have to beat the best.'	Carroll, 2005; Dooner et al., 2008; Hargreaves, 1994; 2000; Johnson, 2003; Penuel et al., 2007; Sumison & Patterson, 2004

Table 5-1. Continued

Conceptual Model Component	Finding	Data	Literature Connection
Teacher Collaboration	Collaboration is fostered and supported through informal experiences, creating a positive atmosphere (ie. mealtime conversation, phone calls, email).	K- And it makes it easier. Let's go have a bite to eat or come and visit. We love to sit down and just chit chat. I like that a lot better because it is more me than before [when I was told to collaborate]. C- Technology has really helped me in finding more time… I can call anyone, any time, anywhere… Email is so instantaneous. It has really helped… In the beginning [of her career] if you needed something from someone you needed to get together. You had to physically meet and you don't have to do that now. M- There is not a whole lot for the teachers to do while you sit around waiting for students to finish competing. So, you sit around and you start talking.	Hartnell-Young, 2006; Park et al., 2007; Selwyn, 2000; Sumison & Patterson, 2004; Williams et al., 2001

Table 5-1. Continued

Conceptual Model Component	Finding	Data	Literature Connection
Teacher Collaboration	Collaboration goes beyond work with other agriculture teachers to include: • administration/other school and district employees • other non-agriculture teachers • community • university faculty • mentors • professional association leadership • students	K- With the University summer science workshop series, I would come back with notebooks and she [science teacher] wanted to go. She has never looked down [on agriculture] and said, 'Oh, you need to do more science.' She would look through the materials for ideas to use and teach agriculture in a scientific method or other laboratory. C- I was lucky to get on a [middle school] team the first year with a lady who was an experienced 7th grade English teacher. She was really good at classroom management and at interacting with kids. I was lucky enough to get under her wing. M- I call the boys [teacher ed faculty]. I said, 'I don't know if you can use this or not but'… I've tried to stay in touch with them so I can give [my students] the best possible advice.	Gehrke & McCoy, 2007b; Hanson & Moir, 2008; Johnson, 2003; Wang & Odell, 2002
Teacher Collaboration	Collaborative relationships: • are mutually beneficial • involve professional friendships • can be professionally challenging • respect individuality of members • can ease competitive cultures	K- It makes me feel better that my friends are feeling the same heartaches I am. C- I think we got more out of it than someone who did it by themselves. M- Collaboration works and it helps and there is a lot of win-win for everybody.	Hargreaves, 1994; 2001; Seifert & Mandzuk, 2006; Sumison & Patterson, 2004

Table 5-1. Continued

Conceptual Model Component	Finding	Data	Literature Connection
Teacher Collaboration	Collaboration is more lasting, meaningful, useful, and welcome when it is spontaneous rather than structured.	K- One day I just called him [ag teacher in Georgia]. We talked about nursery landscape and how to teach the CDE. He told me where to look, which nursery they went to [before the contest], and where to look for that kind of stuff [contest materials]. It was a great talk. C- I made my own associations and these collaborations were probably more useful and more productive. … It seems like it is more fun and you get more out of it personally and on the professional level. M- That is what collaboration can be. Because of that one teacher's nice conversation at our State FFA Convention, they're now giving away scholarships…	Bogler, 2002; Hargreaves, 2000; Park et al., 2007; Weiss, 1999; Williams et al., 2001
Teacher Professional Development	Collaboration is professional development; a useful tool for encouraging teachers to seek opportunities they may not otherwise.	K- When I think of collaboration today, it may not be in a lesson plan or that type of format. I collaborate with my peers professionally. We call it 'professional development' and I think that is what it is. I think it still plays an important part in driving my professional development. C- I feel [collaboration] has helped me a lot in the way I teach and what I teach. It has also helped with the things I've decided to do, or not do, either in the classroom or with the FFA. I think it is extremely beneficial. M- I think I am a better teacher.	Butler et al., 2004; Carroll, 2005; Dooner et al., 2008; Erickson et al., 2005; Hargreaves, 1994; Park et al., 2007; Puchner & Taylor, 2006

Table 5-1. Continued

Conceptual Model Component	Finding	Data	Literature Connection
Teacher Professional Development	Collaboration has the potential for use in all areas of the agricultural education model.	K- I started collaborating with her [science teacher, Mary] to get through the science courses that I was teaching. Most labs require chemicals. I didn't buy a thing. I went to Mary. … We go to the storeroom and it's always, 'Whatever you need, Kevin.' I drove her classes to [the marsh] two and three times every year. (classroom/lab instruction) C- I pretty much had the traditional type SAEs. We shared ideas and I incorporated a couple of non-traditional things [exploratory and agriscience] so everyone could participate. (SAE) M- When I asked Rebecca for some help, she said, 'Just come by here and we'll work out with my team.' (FFA)	Boone & Boone, 2007; Greiman et al., 2005; Hargreaves, 1994; Park et al., 2007; Warnick et al., 2004
Teacher Professional Development	Collaboration is likely when experiences begin early (ie. university teacher education program).	K- I kind of leaned on George a lot. … He helped me with physics. C- When we weren't assigned a project where we worked together we were always studying together and doing our personal stuff together. …It was a nice little group. … We were all having the same experience [during student teaching] at different locations… we could really relate in that way. M- We just kind of fed off of each other and supported each other. We worked with each other.	Johnson & Birkeland, 2003; Sumison & Patterson, 2004; Seifert & Mandzuk, 2006

Table 5-1. Continued

Conceptual Model Component	Finding	Data	Literature Connection
Teacher Professional Development	Collaboration evolves with a teacher's experience (Appendix E).	K- The first few years [of my career] I felt like I was in survival mode… After I moved to my current school, I was able to collaborate more because I wasn't trying to survive anymore. C- In the beginning, I was mostly collaborative because I had to or I needed to. You were not necessarily told but it was required of you. Then I got to the point where I made my own associations… where I still am right now. M- It kind of started from there [collaboration with the preservice cohort] and then developed from there.	Park et al., 2007
Teacher Career Satisfaction	Collaboration is a way to find additional reward once classroom instruction, FFA, and SAE have been perfected or the teacher is beyond survival mode. Generally includes an increased professional awareness due to a greater competence and confidence.	K- I am seeing a need for being worried about more than your own skin, even though that is where it starts. We need to be worried about everyone because it will all affect us. C- I think I was ready for some new blood, some influence of something. We tried to do things on a higher level with the kids and with ourselves. Every time you better yourself, the repercussion is the kids will do better. M- I have a greater appreciation for what we do because I see what other teachers don't do and I see how our students respond in this class versus other classes.	Carroll, 2005; Gehrke & McCoy, 2007b; Hanson & Moir, 2008; Hargreaves, 2000; Johnson & Birkeland, 2003; Puchner & Taylor, 2006

Table 5-1. Continued

Conceptual Model Component	Finding	Data	Literature Connection
Teacher Career Satisfaction	Collaboration provides emotional support and decreases isolation as a socialization tool.	K- I didn't have the chance to work with other ag teachers at my first school. But buying in and talking to people, that makes it fun. Collaboration eases the loneliness. I can pick up a phone and talk to a friend/ an ag teacher/ another comrade and get their ideas. C- There was nobody because, not to be mean, but they were all men! That was kind of difficult. There wasn't even anybody young. They had all been there quite a while. They were nice enough but they were not overly friendly to help you. M- It was rough!... I called him… Then I got to know his teaching partner… It just kind of mushroomed from there.	Boone & Boone, 2007; Burbank & Kauchak, 2003; Dooner et al., 2008; Gehrke & McCoy, 2007a; 2007b; Greiman et al., 2005; Hargreaves, 1994; 2000; 2001; Johnson, 2003; Little, 1990; Kardos & Johnson, 2007; Park et al., 2007; Seifert & Mandzuk, 2006; Sumison & Patterson, 2004; Williams et al., 2001
Teacher Career Satisfaction and Teacher Retention	Collaboration increases teacher career satisfaction and may contribute to program viability and teacher retention. • Contributes to a more supportive culture • Contributes to the level of teacher engagement and investment • May help guide career decisions	K- … that's the fun part of the job… The collaboration has increased my job satisfaction… If we are not going to collaborate professionally, then it is a dead profession. C- I think it has been good for me. Getting to work with somebody revitalizes you. M- I would say the importance of collaborating professionally depends on how successful you want to be and how soon you want that to happen… You have to hit some home runs to get the publicity and support from your administration. It shows this is a viable program that needs to stay in the community.	Gehrke & McCoy, 2007a; Johnson & Birkeland, 2003; Park et al., 2007; Weiss, 1999; Woods & Weasmer, 2004

APPENDIX A
LETTER TO EXPERT PANEL

September 28, 2007

Dear _____,

As you know, each year talented teachers leave the profession prior to retirement. This often leaves schools and school districts in a challenging position to replace teachers in a time of severe shortages. While research in teacher career retention indicates a number of reasons teachers leave the profession, some of the reasons frequently cited are the feelings of isolation and the lack of socialization teachers experience in what some describe as a "lonely profession." Therefore, I am conducting a research study to better understand the influence teacher collaboration has on one's level of job satisfaction and willingness to remain in the profession. I am in need of your assistance with this important research.

As an agricultural teacher educator, you are an expert on the development of teachers in the state. You have an understanding of their practice in the classroom, in FFA, in SAE, and in matters of program management. With this expertise, I am requesting you review the list of names and identify those teachers who would be best suited for participation in this study on teacher collaboration. From the following list, identify one teacher you believe would be best suited for pilot testing the interview guide and three teachers to participate in the actual study. The list of teachers provided was developed using the following criteria: (1) are mid-career high school teachers, (2) are traditionally certified in agricultural education, (3) have completed the majority of their teaching experience at their current schools, and (4) have developed strong collaborative relationships with other educational professionals. As the expert, do your best to use your professional perspective. Please make your selections and return the names to me by Thursday, September 27th, 2007.

- Edward Beasely
- Mark Charles
- Christy Rogers
- Lauri Adams
- Roger Peyton
- Kevin Page
- Alanna Thompson

Thank you for your participation. Your role in agricultural education, and in this study, is critical to the future success of the profession and to the agricultural industry.

Ann M. De Lay

APPENDIX B
EMAIL TO RECRUIT PARTICIPANTS

October 17, 2007

Dear _____,

In my 2 ½ year experience in Florida agricultural education, my world was forever influenced by my interaction with you. While at your school supervising interns, I also had an opportunity to observe and visit with you. During that time, I found you to be an agriculture teacher who openly collaborates with other teachers and because of that professional quality, I would like to invite you to participate in my dissertation study.

Being fascinated with the issue of agriculture teacher retention, I have been doing a lot of reading on teacher socialization and cooperation. The research continually demonstrates these factors seem to help alleviate some of the negative aspects of the teaching career. Right now, agricultural education is clamoring for research to better understand how to deal with the problem of rapid teacher turnover. I think through conversations with you, we might just learn a little more about what it takes to get teachers to stay in the classroom.

With your consent, I would like to conduct a series of three interviews (lasting between 60 and 90 minutes each) to learn about your experiences with, and beliefs about, professional collaborative relationships. If you are willing to participate in this important study, please let me know by October 10, 2007 and we can arrange a date and time to do so.

Thank you so much for considering my request.

Ann M. De Lay

APPENDIX C
INTERVIEW GUIDE

Researcher Introduction**:**
Thank you for your willingness to participate in this study. I want you to think about collaboration as it relates to the decisions you make as a professional; essentially how and why you do what you do. Take a moment to think about your collaborative experiences and how your interaction with others has shaped you personally and professionally. Now, let's visit over the following questions.

Session 1 – Focused Life History
Interview Questions

- Describe your experiences with collaboration during your preservice teaching program (ask for stories).
- Is there anything else you would like to add? Do you have any questions or comments?

Thank you for your time.

Session 2 – Details of the Experience
Interview Questions

- Tell me about those teachers with whom you collaborate.
- On what types of things do you tend to collaborate with other teachers?
- Tell me how you began collaborating with other teachers.
- Describe your experiences with teacher collaboration.
- How important is it to collaborate professionally?
- What occurred in your career to help you realize the benefits of collaboration?
- Tell about the challenges you have found related to collaborating with other teachers.
- Is there anything else you would like to add? Do you have any questions or comments?

Thank you for your time.

Session 3 – Reflection on Meaning
Interview Questions

- In what ways has your collaboration with other teachers evolved?
- Based on your experiences, what promotes collaboration?
- What changes in your practice do you believe can be attributed to your collaboration with other teachers?
- How have your collaborative experiences impacted your perceptions of the profession?
- In what ways do you believe you can increase the usefulness of teacher collaboration?
- In what ways have your collaborative relationships impacted your decision to remain in the profession?
- Is there anything else you would like to add? Do you have any questions or comments?

Thank you for your time.

APPENDIX D
THANK YOU EMAIL TO PARTICIPANTS FOR MEMBER CHECK

January 05, 2008

Dear _____,

Thank you for meeting with me during the extended interview series and sharing your experiences regarding teacher collaboration. I appreciate your willingness to share your unique perspectives, thoughts, feelings, events, and situations.

Attached is a copy of the transcripts for each of the three interview sessions. I invite you to review the documents while asking yourself if the interviews have captured your full experience with teacher collaboration. Once you have reviewed the transcripts, you may realize an important experience(s) was neglected. If you find yourself in this situation, feel free to elaborate on those experiences by adding comments using the track changes function on your Microsoft Word program or providing it in its own attachment. Please do not edit the transcripts for grammatical corrections. The way you told your story is what is important.

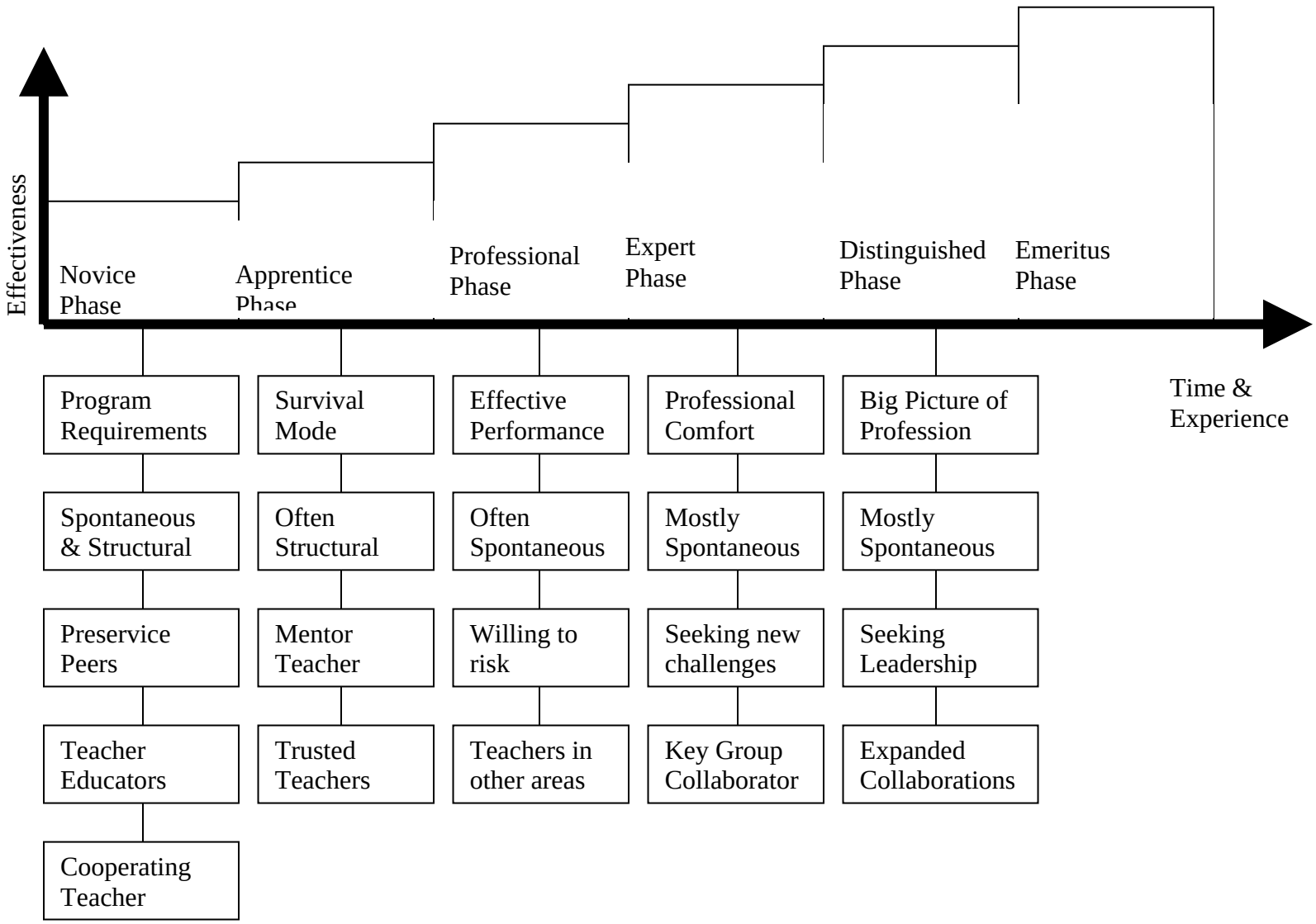
When you have reviewed the verbatim transcripts and have had an opportunity to make changes and additions, please return them to me as attachments in an email. Should everything meet your satisfaction, I will commence analysis.

I have valued your participation in this study and your willingness to share your experiences with teacher collaboration. If you have any questions or concerns, do not hesitate to contact me. I look forward to hearing from you by January 10, 2008.

Thank you!

Ann De Lay

APPENDIX E
CONTINUUM OF TEACHER COLLABORATION


Effectiveness
Novice Phase
Apprentice Phase
Professional Phase
Expert Phase
Distinguished Phase
Emeritus Phase
Time & Experience
Program Requirements
Survival Mode
Effective Performance
Professional Comfort
Big Picture of Profession
Spontaneous & Structural
Often Structural
Often Spontaneous
Mostly Spontaneous
Mostly Spontaneous
Preservice Peers
Mentor Teacher
Willing to risk
Seeking new challenges
Seeking Leadership
Teacher Educators
Trusted Teachers
Teachers in other areas
Key Group Collaborator
Expanded Collaborations
Cooperating Teacher

Adapted from the work of Joerger (2002) and Steffy et al. (2000), the model describes teachers' collaborative experiences through different career phases. Descriptions of teacher collaboration within each phase follow.

- Novice: (Preservice Teacher) These teachers collaborate primarily on completing requirements of their degree programs (ie. course assignments, practical experiences, and student teaching). Collaborative experiences may be both structural, if prescribed by their professors, or spontaneous, if the interaction is initiated by these pre-professionals They collaborate most frequently with their peers in the preservice program, their teacher educators, and their cooperating teachers during this time.

- Apprentice: (Induction Teacher) Collaborations during this time mainly focus on survival experiences. These include how to teach, as well as what to teach. For agriculture teachers, additional programmatic responsibilities such as advising the FFA chapter and supervising SAEs are also being learned. The collaborative experiences during this time are often structural as early career teachers are required to participate in induction programs, of which mentoring and team meetings are part. Collaborators during this phase include the teacher's mentor, as well as other trusted teachers with a little more experience.

- Professional: (Effective Teacher) These teachers collaborate beyond the typical teaching responsibilities. They have the basic classroom/ laboratory instruction, FFA, and SAE tasks under control and are working on improvement. Many feel both competent and confident in their knowledge and skills and are willing to risk. The experiences teachers have with collaborations during this phase are often spontaneous as they have already learned many of the school and district processes and protocols. Teachers in other subject areas, as well as in the same subject area at other schools, are sought for collaboration.

- Expert: (Master Teacher) Expert teachers fulfill the highest level of professional expectation. They have achieved professional comfort regarding their individual teaching contexts through mastery of their classroom/ laboratory instruction, FFA, and SAE responsibilities. The collaborative experiences for these teachers are mostly spontaneous due to their level of experience and success. This phase tends to have a small circle of key collaborators to whom these teachers turn most frequently, who are most likely from the same content area.

- Distinguished: (Gifted Teacher Leader) Having been effective in their own schools, these teachers have shifted their energies to the profession as a whole. They seek opportunities to lead others and work on behalf of all teachers, to address challenges many teachers face. As their focus is expanded, so is their collaborative network. At this phase, the teachers' collaborative experiences are again mostly spontaneous, with these teachers taking on the projects and opportunities they feel will make the greatest impact on the profession. Distinguished teachers often collaborate with leaders from their own and related professional associations, administrators, state staff, and teacher educators.

- Emeritus: (Retired Teacher) None of the participants had reached this phase of the Life Cycle of a Career Teacher (Steffy et al., 2000) at the time of the study. As a result, this level of the continuum as it relates to teacher collaboration is incomplete.

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BIOGRAPHICAL SKETCH

Ann Marie De Lay was first exposed to agricultural education when she enrolled in the program at Chowchilla Union High School in Chowchilla, California. Engaging in the program's opportunities, she knew she was where she both wanted and needed to be. Each piece of the agricultural education model helped her realize her deep appreciation for the industry and fueled her interest in teaching agriculture.

Once accepted to California State University, Fresno, Ann began her program in the area of agricultural education. Taking advantage of every opportunity, she grew as a leader and an agriculturist. Upon completion of her Bachelors degree, she completed a year of student teaching; an experience which taught her much about her identity as a teacher.

She was hired to teach in the agriculture program at Central High School in Fresno, California. The large urban program had seven-teachers and was among the largest programs in the country. Not only did she teach, she served as the FFA advisor and advised the dairy and horticulture SAEs. Freshmen were her favorite students since they perceived everything as new and exciting and had limitless energy.

Ann completed a Masters degree from California Polytechnic State University, San Luis Obispo and returned to serve in a full-time lecturer capacity at Fresno State. The opportunity allowed her to teach the next generation of agriculture teachers. The experience taught her as much as it did the students she served. Currently, Ann is completing a PhD from the University of Florida, in the area of Agricultural Education and Communication and looks forward to assuming a role as a teacher educator in the area of agricultural education.